NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BANKING AND FINANCE
BANKING AND ACCOUNTING PROGRAM

THE RELATIONSHIP BETWEEN DIVIDEND POLICY AND FIRM VALUE IN THE IFRS ADOPTION ERA: A CASE OF BORSA ISTANBUL

RAZHA RASUL

MASTER'S THESIS

NICOSIA
2018

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ACCEPTANCE/ APPROVAL

We as the jury members certify the 'THE RELATIONSHIP BETWEEN DIVIDEND POLICY AND FIRM VALUE IN THE IFRS ADOPTION ERA: A CASE OF BORSA ISTANBUL' prepared by the student Razha RASUL defended on 14 /11 / 2018 has been found satisfactory for the award of degree of Master.

JURY MEMBERS

.....

Assoc. Prof. Dr. Aliya IŞIKSAL (Supervisor)

Near East University
Graduate school of Social Sciences
Department of Banking and Accounting

.....

Assist. Prof. Dr. Behiye ÇAVUŞOĞLU (Head of Jury)
Near East University
Graduate school of Social Sciences
Department of Economics

.....

Assist. Prof. Dr. Nil REŞATOĞLU
Near East University
Graduate school of Social Sciences
Department of Banking and Finance

.....

Prof. Dr. Mustafa SAĞSAN
Graduate School of Social Sciences
Director

DECLARATION

I, RAZHA RASUL, hereby declare that this dissertation entitled 'THE RELATIONSHIP BETWEEN DIVIDEND POLICY AND FIRM VALUE IN THE IFRS ADOPTION ERA: A CASE OF BORSA ISTANBUL' has been prepared myself under the guidance and supervision of 'Assoc. Prof. Dr. Aliya IŞIKSAL' in partial fulfilment of the Near East University, Graduate School of Social Sciences regulations and does not to the best of my knowledge breach and Law of Copyrights and has been tested for plagiarism and a copy of the result can be found in the Thesis.

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My whole life (Hariem, Zhiro and Riva)

ABSTRACT

The relationship between dividend policy and firm value in the IFRS adoption era: a case of Borsa Istanbul

This thesis investigates the impact of dividend policy on firm value after the adoption of International Financial Reporting Standards (IFRS) in Turkey. A balanced panel data from financial firms listed on Borsa Istanbul between 2005 and 2017 have been chosen to investigate. Drawing strongly upon the price theory of value relevance for dividend policy decisions, this paper attempts to answer three principal research questions. First, does dividend intensive increase stock price for listed financial firms in Turkey? Second, does dividend intensive increase market value to book value for listed financial firms in Turkey? Finally, what is the impact of IFRS adoption on the relationship between dividend policy and firm value over the period 2005-2017 in Turkey?

Using an explanatory research design, we use several multivariate regression techniques, pooled OLS, FE, and RE, to examine the relationship between dividend policy and firm value. The research findings indicate that dividend policy was positively and significantly related to price per share and Tobin's Q ratio during 2005-2017. Moreover, the relationship has strengthened over the period, indicating that accounting information such as dividends prepared under IFRS is more value relevant.

The findings of this research make several essential contributions. First, they offer valuable insights into the literature about the relationship between dividend policy and firm value in an emerging economy, Turkey. Second, contrary to most of the studies we examine that relationship for all financial firms. Third, the impact of IFRS implementation, as the key regulatory change in Borsa Istanbul, is considered on the potential relationship between dividend policy and firm value.

Keywords: dividend policy, firm value, IFRS, financial firms, BIST.

ÖZ

UFRS'nin benimsenme dönemindeki temettü politikası ile firma değeri arasındaki ilişki: Borsa İstanbul vakası

Bu tez, Türkiye'de Uluslararası Finansal Raporlama Standartları'nın (UFRS) kabul edilmesinden sonra temettü politikasının firma değeri üzerindeki etkisini incelemektedir. 2005 ve 2017 yılları arasında Borsa İstanbul'da listelenen finansal firmalardan elde edilen dengeli bir panel verisi araştırıldı. Temettü politikası kararları için değer alaka düzeyine ilişkin fiyat teorisine güçlü bir şekilde odaklanan bu çalışma, üç temel araştırma sorusunu cevaplamaya çalışmaktadır. Birincisi, Türkiye'de borsaya kote finansal firmalar için temettü artışı artıyor mu? İkincisi, Türkiye'de borsada işlem gören finansal firmalar için temettü yoğun pazar değerini arttırmak mıdır? Son olarak, Türkiye'de IFRS'nin benimsenmesinin 2005-2017 dönemi temettü politikası ile firma değeri arasındaki ilişki üzerindeki etkisi nedir?

Açıklayıcı bir araştırma tasarımı kullanarak, temettü politikası ile firma değeri arasındaki ilişkiyi incelemek için çeşitli çok değişkenli regresyon teknikleri, birleştirilmiş OLS, FE ve RE kullanırız. Araştırma bulguları, temettü politikasının 2005-2017 döneminde hisse başına fiyat ve Tobin'in Q oranı ile pozitif ve anlamlı bir şekilde ilişkili olduğunu göstermektedir. Ayrıca, söz konusu ilişki, UFRS çerçevesinde hazırlanan temettüler gibi muhasebe bilgilerinin daha uygun olduğuna işaret ederek, dönem boyunca güçlenmiştir.

Bu yazının sonuçları çeşitli katkılarda bulunmuştur. Birincisi, gelişmekte olan bir ekonomideki temettü politikası ve firma değeri arasındaki ilişki hakkında literatürde yararlı bilgiler sunmaktadır. İkincisi, çalışmaların çoğunun aksine tüm finansal firmalar için ilişkiyi inceliyoruz. Üçüncüsü, Borsa İstanbul'da kilit düzenleyici değişim olarak IFRS uygulamasının etkisi, temettü politikası ile firma değeri arasındaki potansiyel ilişki üzerinde düşünülmektedir.

Anahtar Kelimeler: temettü politikası, firma değeri, UFRS, finansal firmalar, BIST.

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ABBREVATIONS

BIST	Borsa Istanbul in Turkey
BRSA	Banking Regulation and Supervising Agency
CBN	Central Bank of Nigeria
CDP	cash dividend payment
CMB	Capital Markets Board
CRSP	Centre of Research in Security Prices
DDM	*Dividend Discount Model*
DPR	dividend payout ratio
EPS	Earnings Per Share
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
IFRS	International Accounting Standards
IMF	International Monetary Fund
ISE	Istanbul Stock Exchange
LSE	London Stock Exchange
MM	Modigliani and Miller
NBK	National Bank of Kenya
OLS	Ordinary Least Square
ROE	Return on Equity
SFCF	Structural Free Cash Flow
SIZ	Firm Size
TASB	Turkish Accounting Standards Board
TDR	Gearing Ratio

CHAPTER 1
INTRODUCTION

1.1. Background of the study

There are two contradictory theoretical perspectives on the relationship between dividend payout ratio and the value of firm in stock market (Nwamaka, 2017). The two common propositions of irrelevance dividend theory and relevant dividend theory are used in the literature to explain the argument from opposite directions. Modigliani and Miller theory, which is also well known for MM's irrelevant dividend theory, refutes the existence of any relationship between dividends paid out by a firm and its share price. The theory states that investors careless about the history of dividend and it has zero impact on their investment decisions. The firm value based on the share price doesn't fluctuate and therefore remains constant (Modigliani and Miller, 1961). Since then, numerous researches, empirical examination and theoretical modelling, have been conducted to examine the responses of stock market to dividend announcement by the firm. Despite the critiques on the irrelevance dividend theory, it still stands in the literature crucial.

Nevertheless, two other important theories of Walter and Gordon confirm the relevance motion of dividend to firm value. Walter model emphasises that dividend is almost always relevant to stock price and firm value (Walter, 1963). The model proves an obvious significant relationship between cost of capital and internal rate of return in the determination of dividend policy that tend to increase the interest of shareholders. Similarly, Gordon dividend capitalisation model confirms an important role of dividend policy in firm value determination. It claims that the market price of a stock is a reflection of the current value of declared dividend to be paid to the stock (Gordon, 1959).

Both theories confirm that the size and pattern of dividend to shareholders influence the equity investment decisions and therefore it directly drives market price of shares. Put it differently, dividend policy is value relevant and can determine the market price of shares. Therefore, both managers and investors should care about dividend policy decisions because it has ability to affect the overall value of the organisation in the market.

Countries have been adopting International Financial Reporting Standards (henceforth IFRS) since its first official application from the beginning of 2005. Turkey is one of those countries that mandated firms listed on stock exchanges to prepare their financial statements in accordance to IFRS alongside the European countries. Researchers in the field have been attempting to investigate its influence on other factors of firms including dividend policy and firm value. Moreover, this research attempts to examine the relationship between dividend policy and firm value of financial sectors in Turkey. The adoption of IFRS in Turkey by listed firms should not be ignored and its influence could be relevant.

IFRS is a set of international accounting standards that describes how to present certain types of transactions and events in the financial statements. It has begun as an attempt to harmonise the numbers and information of accounting across countries, supporting companies with the process of producing more understandable and comparable financial information (Alali and Foote, 2012). In another word, IFRS has been developed in order to obtain a unified accounting language, so that the business and accounting can be understood from the company to another and from country to another. IFRS adoption is believed to have a positive impact on the quality of accounting information (Abdullah, 2013) including dividends and retained earnings. In addition, high quality accounting information can cause firm value to increase (Zhu and Niu, 2016). Therefore, we consider this issue in our research by empirically investigating the theoretical association between dividend policy and firm value over IFRS adoption era.

The remainder of the study is ordered as follows: in Chapter 2, a theoretical background will be presented about the subjects; Chapter 3 reviews the most

related and contemporary empirical studies about the association between dividend policy and firm value from different countries; Chapter 4 develops the methodology through describing the data and the variables along with introducing the empirical model; Chapter 5 presents the results of several regression models such as polled OLS, FE and RE. It also performs some other analysis techniques for the purpose of robustness. Then, a discussion of the policy implication is made and the discussions and recommendations follow in Chapter 6.

1.2. Problem Statement

"The harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together" (Black, 1976 cited in Amidu and Abor, 2006)

One of the most controversial subjects is dividend policy in finance. Because both investors and managers care about share price and the value of company, scholars see necessary to investigate the potential factors which might influence the value of a company. Dividend policy is seen among those factors that are likely to have vital impact on the determination of firm value. Although the appearance of the relevant and irrelevant theories of dividend roots back to several decades ago, the precise relationship between dividend policy and firm value has still remained unknown. Finance researchers have theoretically and empirically conducted studies in order to explain whether corporations should pay dividend regularly or occasionally, and what is the optimal size of payment if it should be paid out. In addition, empirical studies attempted to investigate dividend behaviour by applying diverse kinds of research methods. Some scholars (e.g., Baker and Powell, 1999; Baker et al., 2018; Kuzucu, 2015; Mokaya et al., 2013; Ozuomba et al., 2016) have relied on cross sectional primary data through surveying institutional investors and managers to identify their point of view about dividend policy and its impact on firm value. Some others, probably the majority, (e.g., Gul et al., 2012; Hamza and Hassan, 2017; Kajola et al., 2015a; Nwamaka, 2017; Patra and Dhar, 2017) use either longitudinal or time-series secondary data

to empirically examine the relationship between dividend policy and firm value. Despite the extensive literature, the core issue of relationship between dividend policy and stock prices or firm value remains a mystery. Hamza and Hassan (2017) assert that the association between dividend policy decisions and firm value is still an unsolved puzzle.

1.3. Purpose of the Study

The main purposes of this study is to examine the expected relationship between dividend policy and firm value based on different measures aiming to empirically test the value relevance theory of dividends. This relationship is rarely investigated for financial firms especially in the emerging economies such as Turkey. Therefore, our study takes advantage of this and examines the relationship between dividend policy and firm value for listed financial firms Turkey.

Additionally, we want to examine the expected relationship after the adoption of International Financial Reporting Standards (IFRS). Turkey would be the sample which this study concentrates on because Turkey has mandated IFRS adoption for listed firms with Europe since 2005. Since then, firms listed on the Borsa Istanbul (BIST), previously known as the Istanbul Stock Exchange have been preparing their financial statements according to IFRS. Therefore, secondary longitudinal data would be used to achieve the purposes of the study. Data for the quoted firms on Borsa Istanbul is going to be collected from the main webpage of the stock market and DataStream (Thomson Reuters Database) for the period 2005 – 2017.

Using an explanatory study and according to the objectives, the paper addresses a set of research questions. First, does dividend intensive increase stock price for listed financial firms in Turkey? Second, does dividend intensive increase market value to book value for listed financial firms in Turkey? Finally, what is the impact of IFRS adoption on the relationship between dividend policy and firm value over the period 2005-2017 in Turkey?

1.4. Hypotheses

The three dividend relevance models of Walter, Gordon and bird in the hand confirm that dividend payout has impact on shareholders wealth. Walter model emphasises that dividend is almost always relevant to stock price and firm value (Walter, 1963). The model claims that both investors and the company managers care about dividends. Investors are not willing to invest in a company which pay no dividends, thus affecting the stock price and firm value. Furthermore, the model assumes that there is no external financing; the only source is internally retained earnings. It then expects a significant relationship between cost of capital and internal rate of return in the determination of dividend policy that tends to increase shareholders wealth. Nwamaka (2017) finds that regular payment of dividend has ability to reduce uncertainty of the shareholders. Therefore, investors prefer to invest in a company with stable or constant dividend policy. In other words, investors care about dividend when making their investment decisions. If past dividend trend of a company is high, investors would have more willing to invest in the shares of that company and this increase in demand, in turn, lead to increase price of the shares and eventually firm value rises.

The most importantly, the impact of adoption of IFRS would be considered as a regulatory change on the relation between dividend policy and firm value. IFRS is believed to enhance value relevance of accounting information (Abdullah, 2013) since it requires for more disclosure, reduces information asymmetry and enhance overall quality of accounting information, which can in turn help investors in making investment decisions.

Therefore, this study develops the following set of hypotheses:

H1: dividend policy is positively associated with price per share.

H2: dividend policy is positively associated with Tobin's Q.

H3: Earnings per share has positive relation with firm value.

H4: Firm size has positive relation with firm value.

H5: Return on assets has positive relation with firm value.

H6: Gearing ratio has positive relation with firm value.

H7: IFRS adoption enhance the relationship between dividend policy and firm value of financial firms listed on BIST over 2005-2017.

1.5. Limitations

One of the limitations of this study is the extent of generalizability. Because the study is only conducted for one country which is Turkey, we cannot simply generalise our results to the other countries because of many different aspects regarding the economic, financial, cultural, political, etc. circumstances. Therefore, the results are limited and may not be able to predict the relationships in other places. Accordingly, this could be a recommendation for future study to investigate a larger number of countries in order to make comparisons between them and then also might be able to generalise the findings more.

In addition, another limitation is the accessibility to historical data. The reason why we have only chosen 72 financial firms in Turkey is that there were large amount missing data. Therefore, it is recommended that future studies might investigate a larger firm sample if the historically financial data will be available. In doing so, the behaviour of the relationship between dividend policy and firm value can be more confidently interpreted.

In addition, another limitation is that this study investigates the relation between dividend policy and firm value only for the financial firms listed on BIST. Thus, we did not consider the sectors of non-financial firms.

Future study might consider all the listed firms in Turkey. Such findings may deliver sharper insights into patterns of value relevance of dividend policy. It would be interesting to investigative that issue for both financial and non-financial firms listed on BIST and compare the results between the two sectors.

CHAPTER 2
THEORETICAL LITERATURE REVIEW

Since the emergence of the financial theories, numerous ideas have been developed on the economic and financial level. The main objective of the financial theories was to research the issues of financial institutions and markets by looking at the various financial decisions such as investment, financing, distribution of profits. These decisions reflect the strategies of the institutions because of their impact on the value of the firm and achieving the desired objectives planned to reach by the institution.

One of the key financial decisions made by institution’s board of directors is the type dividend policy that the firm follow. The dividend policy includes the decision either to distribute profit among the outstanding shareholders or to obtain it for reinvestment within the organisation in future opportunities. This policy is important because it is thought to have effects upon investors' attitudes on the one hand and many financial aspects on the other hand such as financial structure, funds and liquidity flow, growth rate and financing cost.

In view of the controversy over this policy and its impact on firm value, this chapter illustrates the theoretical content of dividend policy first. Additionally, it attempts to show the theoretical between dividend policy and firm value for the companies listed on stock exchanges. Finally, the chapter provides some of the most relevant and latest studies that have been interested in the subject and that have been seen and adopted as previous literature in this subject.

2.1. Firm value

The concept of value of the firm remains the focus of many academic researchers and accountants since most of the financial decisions, whether internal or external, of long or short term, are based on the firm value because of its great importance for those interested in the affairs and matters of the institution. In most modern research, the term “value” is adjacent to the term “firm”. They are interrelated and interdependent terms to each other. This is an indication of the importance of the first and its association with the second, and perhaps also an indication of the importance of the second and associated with the first (Moeljadi, 2014).

2.1.1. Concept of firm value:

Financial thought builds a link between the concept of value and the concept of institution by trying to address the value related to the enterprise. In the light of a financial theory or financial thought, as a broad and academic field separate from the economy, firm value emerged and developed through stages reflecting the evolution of research in this field, which extends from the beginning of the twentieth century until the fiftieth of the same period (O'Sullivan and McCallig, 2012).

The value of financial thought was credited to J.B. WILIAMS in 1938 (Mrizig, 2014), where he indicated that the value of any asset was determined by the value of all the estimated financial flows offered by that asset. In this sense, the concept of value was linked to the firm, which represents the framework of the value of the firm through the concept, measurement and developed with the emergence of modern financial theory via the emergence of the theory of the firm value, specifically with Modigliani and Miller studies in 1958 and afterwards.

Therefore, firm value is defined by Qanoun (2013) as the fair amount of cash reached by a specialized expert as that amount is generally accepted by the various parties concerned at each stage of the measurement request reflecting the equivalent value of all the resources and the potential of the institution being used in its organization, this is under the concept of sustainability. Moreover, firm value is often measured as its market value

(see, for example, Jo and Harjoto, 2011) through equity market capitalisation which is calculated through multiplying market price per share by the number of common outstanding shares. However, it is also measured as its book value (Clarkson et. al., 2011) via the value of owner's equity. Thus, firm value is the theoretical price which an acquirer has willing to pay in the case of acquisition. In other words, it simply shows how much a firm is worth.

The process of measuring firm value undertakes some organised procedures. The valuation process is defined as: the structured procedure by which the market price of a security is determined using a set of mathematical models based on a positive relationship between risk and return (Penman, 2016). In addition, securities valuation means finding the real value of an investment by its securities. Because the investment decision is taken at present, the present value is the objective basis for obtaining a real valuation of the securities. The valuation models proceed from a basic assumption that the real value of any financial asset is equal to the present value of all future cash flows that the asset holder expects to obtain during the life of the asset.

Since a stock is a proprietary instrument, its value is not separated from the value of the asset or company to which it belongs. In the following section, we are going to deal with some models of valuation of common and preferred stocks separately.

2.1.1.1. Valuation of common shares:

The valuation of common shares is not an easy task. In fact, it needs a comprehensive assessment of the situation of the exporting company. Therefore, common shares are valued in order to determine their real value in the light of availably objective data on the company. The following are some models of the normal stock valuation.

Dividend Discount Model (DDM):

The dividend discount model assumes that the value of the common share is the present value of all future dividends. Net present value of the cash flows is the main principle behind the model which is drawn from the notion of the

time value of money (Lazzati and Menichini, 2015). In the case when the value obtained from the dividend discount model is greater than the present trading price of a stock, then the share is undervalued and vice versa. Gordon growth model is the most commonly used method which supposes a constant rate for dividend growth (Gordon, 1960). According to this model, three variables are taken into account to calculate the value of a dividend-paying share as follows:

$$V_0 = \frac{D_1}{(r - g)}$$

Where,
V_0 is the present value of a common share
D_1 is the predicted value of next period's dividend
r is the cost of equity capital for the company
g is the stable growth rate of dividends, in infinity

In addition, the model can be shown in the following detailed form (Olweny, 2011):

$$V_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \frac{D_3}{(1+K)^3} + \cdots + \frac{D_{\mathrm{n}}}{(1+K)^{\mathrm{n}}}$$

Where,
D_t is the predicted value of dividend in time *t*
K is the required rate of return for a common share

Thus, we can deduce from the second equation that this model is general and valid for the application, regardless of the pattern of changes in a particular stock, from time to time. The model has three forms (Qanoun, 2013). First is non-growth model. This model assumes that the distributions are constant across the years and that the distributions are deducted at the rate of K. Second form is fixed rate of growth in dividend ratio which assumes that dividend ratio grows at a steady rate but at a rate lower than the desired yield. The last form is variable rate of growth in dividend ratio. This model

supposes that the future growth rates of dividend may increase or decrease. We can observe from the following equation that the first part of the equation is the present value of the dividend during the first growth phase, while the second part is the present value of the time-adjusted perpetuity.

$$V_0 = \frac{D_0(1+g_1)}{K-g}\left[1-\left(\frac{(1+g_1)}{(1+K)}\right)^t\right] + \left(\frac{(1+g_1)}{(1+K)}\right)^t\left[\frac{D_0(1+g_2)}{K-g_2}\right]$$

Price multiplier model (PER):

Many investors prefer to estimate the value of common shares using the multiplier model (see, for example, Srinivasan, 2012; Tian, 2011). The prevailing profit multiplier which also referred to as the P/E ratio, can be calculated as follows:

Revenue multiplier = Market price per share / net profit per share

This calculation of the current earnings multiplier refers to the prevailing trend of investors toward the value of a stock in which the prevailing must decide. It also indicates the number of years for P/E investors to reconcile whether they are in agreement with the share value of the annual profits expected to be received. The calculation of the profit multiplier using the net profit per share for a past period is not acceptable to analysts as the investor buys the stock on the basis of future profits.

2.1.1.2. Valuation of preferred shares:

The present value of the preferred shares can be calculated very similar to the way that the present value of common shares is calculated, taking into account that the dividend rate for the preferred shares are constant. Preferred stock has the characteristics of both stock and bond (Carvalhal, 2012). Similar to the common shareholders, preferred shareholders are part owner of the corporation. However, preferred shares and corporation bonds are alike in regard with their fixed payment (Damodaran, 2016). The present value of a preferred share can be found in the following equation:

$$V_0 = \frac{D_1}{1+r} + \frac{D_2}{(1+r)^2} + \frac{D_3}{(1+r)^3} + \cdots + \frac{D_n}{(1+r)^n}$$

Where,

V_0 is the present value of a preferred share

D_1, D_2 - Dn are the predicted values of future periods' dividends

r is the required rate of return

This equation indicates that the present value of a preferred share is the present value of the premium dividend for an indefinite period.

2.1.2. Value maximization purpose

Some believe that maximizing profit is the primary goal for the firm. Nevertheless, others believe that the priority is given to maximizing value. These ideas are claimed through several different considerations. Economists see maximization of profitability as a goal to assess the organization's operational performance because they believe that maximizing profitability reflects the economic efficiency of the institution. As a consequence, it is argued that all decisions within the organization must be directed towards maximizing profit by working to maximize the productivity of available sources of investment (Thanakornworakij et al., 2012).

Nonetheless, researchers in finance did not accept the idea of maximizing the profit that the economists assume as the essential goal to evaluate the performance of the institution. The reason is because of having several defects. Examples of these defects are; not taking investment risks into account, neglecting the time value of money, and the ambiguity in the way of calculation.

Therefore, financial researchers built the idea of maximizing the organization's present value to measure its performance as an alternative to maximizing profitability. They argue that the value of the organization increases as it achieves immediate outcomes. However, it should seek to achieve results in the future through the investigation of future profitability and determine the feasibility of investment projects in the future. Thus, the

level of wealth can be predicted through the results achieved in the past and present, and through what is known as the present value of the firm (Breslow and Badawi, 2012). This objective is an ideal strategy compared to maximizing profit because it takes into account criticisms of economic thought.

2.2. Dividend policy

2.2.1. The concept of dividend policy

Before we provide the definition of dividend policy, the concept of dividends should be identified. Weygandt et al. (2015) referred to it as a part of the profit that the agent distributes to the shareholders after the approval by the board of directors in cash or by stock. These profits are the result of the activity of the current or previous session to meet the needs of the owners or to send a market signal about a particular situation. Such distributions shall be from the internal or external resources of the enterprise.

Thus, the dividend policy is defined as: the content of the decision to distribute or retain profits for reinvestment in the enterprise (Kajola et al., 2015b). It includes the optimal policy of distributions in those that work to balance current distributions and future profits, resulting in an increase in share price.

2.2.2. Forms of dividend policy

When forming a dividend policy, Masum (2014) states that the firm must consider two main objectives: first, to provide sufficient funds to pay dividends; and second, to maximize the shareholders wealth. There are two types of dividends: cash dividends and stock dividends.

2.2.2.1. Cash dividend

According to this type of dividend, a corporation might follow one of the following dividend policies (Weygandt et al., 2015):

Fixed dividend payout ratio: the policy is to pay dividends to the shareholders of the company as a percentage of profits in the currency of the country in which the company operates;

Regular dividend payout ratio: this policy is based on the payment of dividends in the currency of the country in each period of time;

And *low and growing dividend payout ratio*: the policy is to pay fixed dividends but at low amounts, and the company increases these distributions when profits are higher than their normal profits over a given period of time.

2.2.2.2. Stock dividend

According to this type of dividend, a corporation might apply one of the following methods:

Bonus stock dividend: the company follow a continuous giving of a number of shares rather than giving cash dividends. It is allotted by the firm to reward the shareholders. Each investor's share of this dividend shall be determined by the percentage of the shares held by the company (Iyengar et al., 2018). The purpose of such dividend can be recapitalization or restructuring in the company.

Repurchases of common stock: in some circumstances, the company may decide to repurchase of its ordinary shares. These procedures lead to the creation of so-called treasury stock, which are shares that were previously issued and then repurchased by the company. The incentive for this process is to reacquire the shares to merge or to procure the ownership of other companies. On the other hand, it might occur in order to avoid control or takeover the firm by other companies (Almeida et al., 2016).

2.2.3. Determinants of dividend policy

A key question regarding this is whether firm’s dividend policy is an investment decision or a financing decision, and why? It is noted that the dividend policy, as a decision in an economic institution, is not simple. However, it carries in its content a double and complex problem. Therefore, the treatment of this policy must take place in the light of the objective that the institution seeks to achieve, which is known as maximizing the value of the institution regarding the funds invested.

2.2.3.1. Dividend policy as an investment decision:

Dividend policy refers to an investment decision if its decisions are based on the first source, the cash generated through the operations. In such a situation, the effects of these decisions may extend to the investment opportunities available to the institution. Therefore, the decision to distribute profits here may reflect an investment problem that necessitates its own position to make an essential decision.

The search for solutions to the dividend policy as an investment problem may require the institution to wait until the decision to choose the investment opportunities available, and use that remaining part of the cash generated by the operation for dividend after meeting all the requirements of investment in the institution (Kajola et al., 2015a).

2.2.3.2. Dividend policy as a financing decision:

In some circumstances, the institution may rely on an external source in order to pay out dividend. This is to avoid the investment problem might cause by the use of cash from internal operations. In such a situation, the decision to distribute profits using external funds (borrowing loans or issuing new shares) may reflect a funding problem. This is likely to happen especially if it will affect the appropriate funding structure of the institution. Primarily, this means that the trend towards the use of the external source to finance the dividend policy needs to be planned in the light of the determinants of the appropriate funding structure. This must not be contrary to the objective of maximizing the share price as much as possible. The relationship between the dividend policy and the decisions of investment and financing can be illustrated through the following equations:

$$\text{Dividends} = Total\ cash\ flow - Funds\ required\ for\ investment$$

$$Total\ cash\ flow = Operating\ cash\ flow + Cash\ flow\ from\ financing$$

$$Dividends = (Operating\ cash\ flow + Cash\ flow\ from\ financing) - Funds\ required\ for\ investment$$

This relationship can clarify that the distribution of profits in the institution is only the result of the difference between what cash is available to this institution (internal or external) and the funds needed for investment plans. It can be noted that if the internal cash is sufficient to cover the investment demands or exceed it, there is no need to obtain external funds as a way to finance the dividend policy (Kajola et al., 2015b).

2.2.4. Theories to explain dividend policy

There are several theories and hypothesis in the literature that capable to explain dividend behaviour. A dividend theory is a definition of an evident relationship which implies to clarify an association between dividend forms and different causal variables affecting these forms. It is worthwhile to mention that dividend hypotheses and theories are different with the dividend policies that are practiced by corporations. They regularly cannot be entirely explicated by pure theory (Bremberger et al., 2016). The reason is practiced dividend policies are determined based on the empirical behaviour of the corporation regarding payout processes. In this section, the most commonly studied dividend theories will be described.

The fundamental purpose behind the dividend theories is, “whether firm value is influenced by dividend policy that implied by the theory”. Put it differently, can dividend policy causes firm value? This starting point of this relationship dates back to the late of 1950s and the beginning of 1960s when Miller and Modigliani developed the issue (see, Miller and Modigliani, 1961). The four common dividend theories are the MM dividend irrelevance theory, the residual dividend theory, the bird-in-the-hand theory and the tax preference theory.

2.2.4.1. The MM dividend irrelevance theory

Dividend irrelevance theory indicates that dividends is irrelevance to stock price and therefore does not have any impact on firm value. The theory states that shareholders can gain their return on stock price regardless of dividend. Therefore, investors care little about dividend policy of a company when it comes to the investment decision since they are able to simulate by

their own. That means there might be some other potential indicators who drive stock price not dividend policy decisions. This theory states that the value of the company is determined only by the company's profits and the risks of its assets or investments. This theory was developed by researchers Modigliani and Miller. It is therefore called the MM theory.

The MM theory of dividend is based on a set of assumptions that are believed to be unrealistic and, therefore, unlikely to put them in practical work. The theory supposes that the following assumptions are exist (Brennan, 1971):

- The capital market is perfect, i.e. there are no transaction costs. Investors are able to build a dividend policy for their own through selling and buying stocks in the market,
- Cost of capital cannot be influenced by financial leverage, i.e. risk rate is equal for all corporations and individuals when it comes to borrowing and lending,
- The rates of retained earnings and dividends do not have any impact on the cost of equity for the firm,
- Information asymmetry does not exist, i.e. investors have the same access as managers have to information about the firm. Therefore, their forecasting about the firm’s performance regarding risk and return are homogenous, and
- There are no taxes on both corporate and personal income.

Scholars criticise the irrelevance theory of dividend for being unrealistic regarding its assumptions. Therefore, the notion that dividend policy is irrelevant to firm value is doubtful. Lease et. al. (1999) argue that such claim can only be made in the situation when capital market is perfect. This is seen as one of the critiques to the irrelevance theory. In addition, scholars (see for example, Brunzell et. al., 2014; Khan et. al. 2017; Li and Zhao, 2008, Saeed and Sameer, 2017) stress that market imperfection situations such as information asymmetry, taxes, risk uncertainty and investment policy can alter the conclusion of dividend irrelevance. In other words, it is less likely for the capital market to be perfect. DeAngelo and DeAngelo (2006) argue that

dividend payout is almost always relevant, even in frictionless market. Therefore, it can be concluded from those arguments that dividends actually matter when those assumptions are relaxed.

2.2.4.2. The residual dividend theory

Consistent with the MM theory, another most accepted theory among the scholars in finance regarding the dividend policy is the residual dividend theory. Since we described the notion of irrelevance theory, the residual theory of dividends can be explained without difficulty. Although it is not directly the MM conception, it arrives to pretty similar conclusion regarding dividend irrelevance. According to this theory, although all shareholders seek to maximize their wealth, they are aware of the fact that the company will retain profit and reinvest it in the company if it has new and profitable investment opportunities. This is likely to be accepted when the rate of return on the invested profits in the company exceeds the rate of return required by the shareholders if the distributed profits would be invested outside the company but with equal risk (Qanoun, 2013).

Theoretically, managers, who give priority to value maximizing, ought to invest only to the level that net present value of investment is positive. Furthermore, only when the entire opportunities were used by managers, the firm is willing to pay out the residual cash flow to its shareholders in the form of dividend. In some circumstances, the investment opportunities in front of a firm might be greater the cash inflows. This is called capital constraints that a company is likely to experience (Abdullah et al., 2017). In this case, the firm would not be willing to pay out dividend and it will therefore be zero. The default in the residual dividend policy is when dividend is not paid to shareholders (Smith, 2009). However, if some the company specific conditions meet, the firm will pay dividend. Examples of those conditions are greater cash flows than investment opportunities and there is no plan for stock or debt retirement. Although it creates the policy of smoothed dividend, these conditions are met very often in a firm.

In sum up, the hypothesis proposes that the portion of profit which is distributed by a company to shareholders ought to be seen as a residual. By residual, it means the portion remained after entire worthy opportunities of investment have been commenced. According to a scheme of the residual dividend model, the dividend distributed in any financial period would equal to period's net income minus the target equity ratio for the firm, multiply by total capital expenditure which is planned for by the company.

The reason the objective value proportion is utilized is with the goal that the dollars spent on the company's arranged capital spending system will be financed in order to keep up the company's esteem augmenting target capital structure. The target equity ratio is bled here for the purposes that the amount spent in company's capital expenditure package would be financed so in order to sustain the value maximisation process for objective capital structure in the company.

The formula for a period's profit distribution according to a residual model is generally as follows:

$$\begin{aligned}&\text{Dividends}\\&= Net\ income\\&- Retained\ earnings\ needed\ to\ finance\ total\ capital\ expenditures\end{aligned}$$

$$\begin{aligned}\text{Dividends} = Net\ income - [&(Target\ equity\ ratio)\\&\times (Total\ capital\ expenditures)\end{aligned}$$

2.2.4.3. Bird in the hand theory

This theory is developed and supported by the scientists Gordon and Walter since the late of 1950s and the early of 1960s. Gordon dividend capitalisation model confirms an important role of dividend policy in the determination of firm value. The model assumes that investors are risk averse and they care about certain returns such as dividends. The model claims that the market price of a stock is the reflection of the current value of declared dividend to

be paid to the stock (Gordon, 1959). In other words, dividend policy is value relevant and can determine the market price of shares.

From this perspective, bird in hand theory states that investors prefer dividends to capital gains because of their lower default risk. In other words, dividend is a less risky return for shareholders like a bird in the hands, while capital gain with through the increase of share price is not guaranteed and involves risk. Therefore, in order to maximize the firm value, one company needs to have high dividend payout ratios in order to be able to give a momentum to the financial market which in turn stimulate investors and increase demand on the shares of that particular company (Baker et al., 2018).. In other words, high ratio of dividend payout, according to bird in hand theory, would have ability to increase share price in the financial markets because investors tend to give priority to dividends rather than capital gain. Here, investors would be benefited twice, first with the dividend payout they receive and second with capital gain because the prices of their shares are expected to increase once dividend is declared (Oyinlola and Ajeigbe, 2014).

Similarly, Walter (1963) emphasises that dividend is almost always relevant to stock price and firm value. The model claims that both investors and the firm care about dividends. Investors are not willing to invest in a company which pay no dividends, thus affecting the stock price. Furthermore, the model assumes that there is no external financing; the only source is internally retained earnings. The theory then expects a significant relationship between cost of capital and internal rate of return in the determination of dividend policy that tends to increase shareholders wealth. Moreover, regular payment of dividend has ability to reduce uncertainty of the shareholders. Therefore, investors prefer to invest in a company with stable or constant dividend payout (Nwamaka, 2017). In other words, investors care about dividend when making their investment decisions. If past dividend trend of a company is high, investors would have more willing to invest in the shares of that company and this demand, then, increases price of the shares and eventually firm value rises.

2.2.4.4. Tax preference theory:

This theory attempts to clarify the effect of the tax on investor's preference. The theory is developed by Lizen Bergi and Rama Sawani (Qanoun, 2013). According to the tax preference theory, investors often ssek long-run capital gains instead of present dividend yield. They are willing to spend more on thoes shares of a company that reinvest their earnings into projects of capital appreciation as an alternative to paying out the income in the form of dividends. This preference is based on time value of money and taxes because dividned income is taxed less favourably than equity price appreciation (Kajola et al., 2015a). In other words, the hypothesis is based on the principle that the investor prefers retained earnings more to receive dividends because of tax discrimination which is likely to be capital gains to the firm. This is because that retained earnings are subject to a lower tax rate compared to the tax on dividends which is subject to both corporate and personal income taxes. From this perspective, the theory stands against the theory of the appropriateness of distributions while taking a counterpoint with the previous theory and thus calling on institutions to retain the greatest amount of profits generated.

Although tax on dividend income has been reduced, the tax preference theory is still relevance because of the notion of time value of money. The fact that tax is unwanted by everyone is reflected by tax preference theory of dividends. Moreover, the time value of money connection makes the tax-adjusted cost of the capital gain less smaller in comparision to that for the dividend. This is because the dividend payed today is taxed now whereas the amount of capital gain due will be taxed in future. Therefore, investors who apply the tax preference theory find the company as a place where their invested capital is likely to grow because of the tax-free investment of retained earnings. This is contrary to the case when dividend is paied because its tax liability cannot be postponed.

According to the theory of tax preference, dividend payout by a company is value relevant. In consequence, the theory suggests that companies need to lower their cash dividends to the lowest level if they wish to maximize the value of their shares. That indicates an inverse relationship between firm

value and dividend policy. Hence, it can be observed that it is a metaphor of a bird on the three not in the hand.

2.3. International Financial Reporting Standards (IFRS)

2.3.1. IFRS definition and history

IFRS is a set of international accounting standards that describes how to present certain types of transactions and events in the financial statements. IFRS codes are prepared and issued by the International Accounting Standards Board (IASB). It accurately defines how accountants maintain their accounts and methods of registration. IFRS have been developed in order to obtain a unified accounting language, so that the business and accounting can be understood from the company to another and from country to another. The importance of IFRS is to prepare financial reports while maintaining stability and transparency throughout the financial world. This allows companies and individual investors to make informed financial decisions, because they are able to see exactly what is going on with the company they desire to invest in (Ball et al., 2015).

International standards have been applied in many countries around the world, including the EU and many countries in Asia and South America. Turkey is one of those counties who adopted IFRS along with European counties since the beginning of 2005. In countries that apply to IFRS, both companies and investors benefit from the use of common standards because investors are willing to invest in companies that operate transparently, and the cost of investments is usually lower (see Abdullah, 2013; Bradbury and Mear, 2017). In general, the largest beneficiaries of the application of IFRS are the international companies deployed in several regions of the world for the ease of work comparisons and the study of financial statements, whether for the management of companies or investors.

There are differences between IFRS and International Accounting Standards (IAS). The IAS codes were issued from 1973 to 2000 by International Accounting Standards Committee (IASC) which is then replaced by the IASB in 2001. Since then IFRS codes have been replacing IAS aiming to issue more flexible and adaptable standards for the world.

2.3.2. Requirements for IFRS

The IFRS covers a wide range of accounting activities. However, certain aspects of the business practice established by the IFRS are mandatory (Amina, 2017). One of the compulsory requirements is to prepare the statement of financial position which is also known as the balance sheet. IFRS affects the ways in which the components of a statement of financial position are presented. Second is the statement of comprehensive income. This can be in the form of a single list, or it can be separated into the statement of income (profit or loss) and other comprehensive income, including property and equipment. Third and the most related to our study is the statement of changes in equity which is also known as the statement of retained earnings. This statement shows the change in past earnings, dividends or profits for the current period. And the last is the statement of cash flow. This report summarizes the cash inflows and outflows of the company and separates operating cash flow from the cash flow of investments and financing.

In addition to these core reports, the company must also provide a summary of its accounting policies. The reports of current financial period are often seen alongside the reports of the previous period, showing changes and patterns. The parent company must also create separate financial reports for each of its subsidiaries (Amina, 2017).

2.3.3. Application of IFRS and firm value

The IASB aimed at issuing IFRS to improve the quality and transparency of information to reflect the company's economic performance and financial position (Melegy, 2014). In addition to that, the financial statements available to investors are more comparable to enable them to make rational economic decisions when allocating their resources. Researchers can clarify the nature of the relationship between the transition to IFRS and the quality of accounting information, and the value of the institution in order to test the impact of this relationship in practice.

In the recent period, the importance of accounting studies has increased on the quality of accounting information because of the direct impact of this

information on its users. High-quality accounting information has multiple benefits in a way that may help its users to measure and predict the various types of risks, the efficiency of allocating resources, helping investors make rational investment decisions, reducing the cost of capital, improving the efficiency of their allocation by reducing information asymmetries between managers and investors and reduce agency costs (Li et al., 2017).

It is believed that the financial performance of companies listed on the stock exchanges has improved as a consequence of the conversion to IFRS. This performance has been measured by some basic accounting metrics such as profitability, liquidity and growth (see, for example Abiodun and Asamu, 2018; Junior et al., 2015; Naderian and Mahadevappa, 2014). In addition, studies pointed out that the IFRS contribute to improving the quality of accounting, which is reflected in the high efficiency of the financial report, valuable information, improve the transparency of information, leads to high level of accounting performance and sustainability of the company (Abdullah, 2013). Melegy (2014) also shows that the compatibility with IFRS lead to increased predictability of corporate profits, and positively affects the money market. Moreover, Wang (2014) confirms that the mandatory adoption of the IFRS led to an improvement in the dividend yield on voluntary adoption of these standards. However, this improvement in earnings per share was not clear for companies that did not adopt these criteria.

In light of the above, it can be clearly said that the accounting information resulting from the IFRS standards is highly relevant, reliable and comparable, which contributes to the ability of the users of the financial statements to assess the company's performance, forecast future cash flows, price quotes and forecast future returns which would in turn results in maximise firm value.

2.4. Chapter summary

In this chapter, we briefly described the policy of dividend and its relation to firm value by addressing general concepts about the value of the corporation, which are determined by the value of all the estimated financial flows offered by this asset. This is prepared through the objective of the modern corporation, which is to maximize value. It comes in the modern financial

theory through criticisms of economic thought, which is the goal of profit maximization in the corporations. The dividend policy, which is the entity's decision on the differentiation between the distribution of profits to owners and the retention of profits for the purpose of reinvestment, was also addressed. In turn, there are several forms of dividend distributions, including cash dividends and other distributions in the form of shares.

Since this topic has raised the concerns of modern financial management researchers, several propositions have been organized by a set of theories that have been controversial about dividend policy. Some theories consider dividend as a matter of necessity and build a belief that the distribution of profits without holding them will directly affect the value of the organization. While some other finds that the distribution of profits has nothing to do with the market value of the firm or the price of the ordinary shares. The distribution or retention of profits has nothing to do with changes in market prices.

Furthermore, the application of IFRS and its potential impact on firm value is theoretically discussed in the third section of this chapter. It is widely known that one of the major purposes of issuing IFRS is to improve the quality and transparency of financial and accounting data to actually reflect the company's economic performance and financial position.

CHAPTER 3
EMPIRICAL LITERATURE REVIEW

After discussing the theoretical framework of our research subject, it is also crucial to give an insight regarding the most related and contemporary empirical literature. The purpose of this section is to review the chosen literature regarding several aspects such as the sample and duration they have selected, the methods that have been used, the results they obtained, and their arguments will be illustrated and discussed accordingly. As a consequence of this review of empirical literature, we could be able to identify a reasonable literature gap for our study to be conducted. Then, the findings of the current research can be compared and supported by the results and opinions from that reviewed literature.

The issue of profit distribution policy has received a great deal of attention at the financial and global level to the different characteristics of financial markets, including emerging and advanced, in addition to the different characteristics of institutions and companies from one region to another. Among the studies that have been conducted including university publications and published articles, the most important studies that are directly related to the subject matter of our study were selected and will be reviewed in the following paragraphs.

3.1. Dividend policy and firm value

There are several papers in the literature that empirically investigate the relationship between dividend payout ratio and firm value. Those studies raise questions such as whether dividend premium has any significant impact

of investors' perspectives towards the shares of a firm. Some of them aim to compare between the values of shares for firms which pay dividends against the values of shares for non-dividend payers. In another word, they seek for the answer if the stocks of dividend-payers worth more in comparison to those of non-payers. Others investigate whether any increase in the dividend payments to shareholders brings about and positive changes in the value of the firm measured using different measures such as price per share and Tobin's Q ratio. We are classifying the most contemporary and related studies to our topic into the studies for developed and developing countries for the purpose of comparison.

3.1.1. Empirical studies in developed countries

The research idea of Karpavicius and Yu (2018) has been inspired by the real relationship between some company such as Google and its investors when the company pay no dividend at all. The sample study of this research is the non-financial firms incorporated in the United States of America during the period from 1972 to 2016. Their panel data was taken from Centre of Research in Security Prices (CRSP) and Compustat. The study has eliminated financial firms and concentrated only on non-financial ones because of the fact that their financial characteristics for example capital structure and cash balance are different and could be subject to different sets of regulations. Furthermore, they have only accepted firms with the minimum $0.25 million book value of equity and $0.5 million book value of assets. This is follows the previous literature.

The major variables of the study are the ratios of market-to-book value. They are calculated using both equity and assets, which are market value of equity over book value of equity ME/E and market value of assets over book value of assets MA/A. However, the authors think that ME/E can superiorly measure dividend premium because dividend premium is considerably more essential to stockholders whereas MA/A is not only important to shareholders but to bondholders as well. In addition, the explanatory variables are scaled either by book value of equity or book value of assets in order to attain consistency.

Using panel data regression, the findings of this paper suggests that there is a positive relationship between dividend payout ratio and firm value. This association is found to be statistically significant at 1% level. The results of regression analysis provide 17.4% dividend premium for equity and 7.1% dividend premium for assets. These could indicate the fact that share value of firms who pay dividend is greater that share value of non-dividend payers by an average of 17.4%. They argue that dividend premium of assets is the weighted average of dividend premium for debt and equity. Debt dividend premium can be negative because dividend payout ratio are likely to be negatively associated with the interests of bondholders since it decreases cash balance in the firm and eventually rises illiquidity risk. Therefore, the result of asset dividend premium is lower than the result for dividend premium of equity. Moreover, the results confirm that almost half of the disparity in dividend premium of assets can be explained by the rate of dividend paid by the firms and financial uncertainty-related policy.
This result denotes that investors might prefer dividends to capital gain regardless to the double taxation issue on corporation income once and on dividend paid out to shareholders once time again. A reasonable explanation for this is that the return as dividend is certain unlike capital gains and this is consistent to the notion of bird in the hand theory. The study concludes that US investors in equity are more likely to be risk averse.

Moreover, Hussainey et al. (2011) provide an important insight around the relationship between dividend policy and firm' market performance in a sample of a developed country; the UK. The impacts of both dividend payout ratio and dividend yield are examined on the changes of share price in the stock market, using multiple regression analysis. The findings of this study illustrate that there is a positive association between dividend yield and share price changes. However, a negative effect of dividend payout ratio on the changes in share price was found. The study argues that dividend policy is value relevant for firms listed on London Stock Exchange.

Similarly, Salih (2010) aimed to examine the relationship between the dividend policy and the market value of companies in the UK by testing the

MM’s irrelevance theory of dividends and their appropriateness in the UK financial market. Additionally, the relationship between the dividend policy and the investment policy of the listed companies is also investigated. It further tests the extent to which these companies rely on residual dividends.

In this thesis, the researcher adopted experimental study to test the impact and relationship as follows: first stage is directed to test the validity of the MM theory of dividends by exploring the relationship between the forms of dividends - cash dividends, bonus dividends, stock repurchases - earnings per share and investment policy - retained earnings with the value of the listed firm based on annual and semi-annual data for a sample of 362 companies across several sectors for the period 1998-2007. Second stage flows to disclose whether companies prefer a policy of reinvesting residual profits or not based on the accounts of Structural Free Cash Flow (SFCF) for 590 firms listed on the London Stock Exchange (LSE) for the period 1998-2007.

The researcher has reached several results. The most important is the invalidity of the theory of the MM’s irrelevance theory of cash dividends. This occurred because the results show a statistically significant relationship between the dividend policy and the corporate value of companies in the UK. Moreover, there is a relationship between earnings per share, investment policy and market value of shares. This confirms that the announcement of the dividend payment would affect the market value of companies. The results also illustrate that British companies generally rely on the policy of the residual dividends, which indicates the preference for the policy of investing profits on their distribution except for the financial sector. The results also showed that most British companies prefer cash distributions to other forms of distributions because of the relaxed process of implementation involved.

3.1.2. Empirical studies in developing countries (Turkey)

The study of Baker et al. (2018) can be considered as an important attempt to review the major theories around dividend payment in an emerging economy. The study takes into consideration the view of corporate managers of firms listed on the Borsa Istanbul (BIST). This research uses a survey-based data collection method aiming to provide new evidence to the literature on dividend policy through extending previous literature in an emerging market. For the reason that it is counted as one of the most essential emerging economies, the study investigates Turkey financial market. The authors believe that the strategic location of Turkey between Middle-East and Europe and being a candidate member of the European Union are two key factors to see its economy important. Apart from these reasons, it can be clearly seen that Turkey financial market is trying to adopt modern major reforms such as the compliance with the International Monetary Fund (IMF) in the financial year 2003 and the implementation of IFRS at the beginning of the fiscal year 2005. These factors all together offered the likelihood to enhance the stock market condition in Turkey. In particular, the monitoring structure of cash dividend policy has also been changing by Turkish regulators. Therefore, the study of Baker et al. (2018) has been inspired to examine dividend policy in the Borsa Istanbul.

The sample of this research has been drawn using the Borsa Istanbul's Public Disclosure Platform 2017. All listed companies in the entire share indices on BIST during 2014 have been considered at the first glance. Afterwards, the study shortlisted the firms by excluding financial and utility firms because they follow perhaps dissimilar dividend and investment policies and their regulations are different. Following to these exclusions, only those firms are selected who declared and paid at least one cash dividend to their shareholders of common shares over the period from the beginning of 2010 to the end of 2014. The reason for excluding non-dividend payers is to achieve the objective of the study which is seeking for the causes of paying dividends by firms listed on BIST. Consequently, the final sample size is 126 firms of non-utility and non-financial dividend-payers quoted on the Borsa Istanbul in Turkey.

The authors emailed the top managers of the 126 firm in two rounds and contacted the non-respondents by telephone afterwards. Eventually, the response rate of the study is 45.2% - 57 useable questionnaires out of 126. The response rate in this study is relatively higher than the studies carried out previously (see, for example, Baker and Kapoor, 2015; Baker and Powell, 2012; Bancel, et al., 2005). In addition to the survey, the study also collects financial secondary data for the entire 126 selected firms from Osiris and Data stream databases in order to perform extra examinations.

Several statistical tests have been performed in this study in order to test the proposed research hypothesis such as one-sample t-test, spearman's rank correlation coefficient, Wilcoxon test and Levene's test. The results indicate that the study failed to find evidence to support residual hypothesis of dividends, tax preference theory, substitution model of dividends, transaction cost hypothesis, and agency cost theory. However, the study could find evidence to support bird-in-the-hand theory and signalling hypothesis for clarifying cash dividends. They conclude that firms listed on BIST are likely to follow alike pattern of dividend policy. This came after the abolishment of the requirement of mandatory dividend payment in Turkey.

In a similar study, Dogan and Topal (2014) investigate the association between dividend policies and the performance of firms operating in BIST, using a sample of 172 non-financial companies for the period of 2008-2011. This study classifies the sample firms into two classes based on the dividend policies they follow. Firms who pay regular payments of dividend are separately considered compare to firms who make no regular payments of dividends to their shareholders. The key purpose is to understand if there is a difference between the financial performances of the two categories of firms. Using multiple regressions, this study found that dividend payments influenced firm performance. Precisely, it claims a positive relationship between dividend payout ratio and Tobins' Q ratio for non-financial firms listed in Turkey. Moreover, Yilmaz and Gulay (2006) found that cashdividend payments significantly influences stock return of firms listed on Istanbul Stock Exchange between 1986 and 2003.

3.1.3. Empirical studies in other developing countries

The research of Mokaya et al. (2013) is another key attempt to examine the relationship between dividend policy and firm value measured by the market value of shares in a developing economy. What makes this research different from the previous discussed studies is the nature of the sample firms. Instead of using non-financial firms, Mokaya et al. (2013) concentrate on the banking sector. The question that raised by this study is whether dividend policy in banks influences the prices of their shares. The authors think that answering this question is vital since the management of banks deals with opposite interests of numerous stakeholders. The major purpose of the study is to investigate the aforementioned association in National Bank of Kenya (NBK). In order to do so, the authors construct their research hypotheses as none of the variables of dividend payout, dividend growth rate and regulatory of dividend declaration can have a significant influence of the stock market price of NBK. This indicates that this study utilises the three measures of dividend payout ratio, growth rate of dividend and dividend declaration regulations for constructing dividend policy.

Consistence to the study of Baker et al. (2018), this paper employs a survey questionnaire to collect primary data. However, the respondents are shareholders this time not managers. In order to be able to describe the characteristics of the variables and to show systematic clarification of the associations among them, the study uses an explanatory research design as maintained by Kothari (2004). Moreover, this research applies a stratified sampling method to select 100 respondents out of the total of 47,000 general public shareholders of National Bank in Kenya. The authors divide the population into five strata based on the number of shares hold by each stockholder; 1 – 100,000 shares, 100,001 – 200,000 shares, 200,001 – 300,000 shares, 300,001 – 400,000 shares, and stockholders with above 400,000 shares. Accordingly, the questionnaires have been distributed to 20 shareholders in each strata aiming to obtain equal perspectives from each group and avoid bias. The response rate was 68 per cent.

With regard to data analysis, this research illustrates descriptive statistics for the research data by considering mean, percentages and frequencies.

Through this the authors would be able to describe the characteristics of the variable used in the study. In addition, they attempt to determine and clarify the hypothetical relationships amongst the variables via using correlation and regression analysis. Pearson's Moment correlation coefficient is used to examine the hypotheses of the study. As a reminder, the hypotheses were set to predict no relationship among each of the explanatory variables individually and the dependent variable. Lastly, this study uses ANOVA to further examine the suggested model if it works well.

The findings of the study confirm that the dividend policy has taken a recognised pattern in the case of National Banks of Kenya in a way that 91 per cent of the respondents agreed on. Contrary to the research predictions, the results of correlation coefficient indicate that there are positive relationships between each one of the explanatory variables with dividend policy. Additionally, it is found that dividend policy could have a significant and positive impact on the shares' market value of National Bank of Kenya. As a consequence, the study recommends the bank managements of NBK to follow a dividend policy that satisfies the requirements and interests of shareholders. In this way, they argue, the market value of their shares could be heightened.

Additionally, the influence of dividend policy on firm value is further investigated by Nwamaka, (2017) in a developing country. The research aims to study the determinants of dividend policy and identify its connection with dividend information content. It additionally attempts to examine the impact of agency cost hypothesis on the pattern of dividend payment. The sample of this study consists of ten listed firms in Nigeria between 1995 and 2015.

The research constructs its hypotheses as; dividend information content can govern dividend payments in a company; the pattern of dividend payout can be affected by agency cost, and dividend policy would influences shareholders wealth. In order to empirically test these hypotheses, ten public companies from various sectors in Nigeria have been selected using Quota random sampling technique. Those firma are Cadbury Nigeria, Dangote Cement Nigeria, First bank Nigeria, Guiness Nigeria, Julius Berger, May and Baker Nigeria, Nigerian Breweries, Oando, Presco, Royal exchange

Assurance Nigeria. Therefore, panel data has been collected from the published yearly financial statements of those firms and has been analysed later. Closing share prices were collected from the Central Bank of Nigeria (CBN) main website. In addition to the secondary data, primary data is also collected based on a questionnaire distributed among the respondents from the firm that are selected previously. The respondents were chosen from those firms and were mainly directors, financial managers, part-time chartered accountants, chief accountants, shareholders and share brokers. Therefore, the structural outline of this research is based upon quasi-experimental study and survey research design.

The explanatory variables employed in this study are earnings per share and market price per share. The dependent variable is measured by dividend payout ratio, which is calculated based on the division of dividends on the total earnings. Regarding the method, a simple regression method of Ordinary Least Square (OLS) is utilised to estimate and analyse the data. Moreover, some other tests are conducted in addition to OLS such as pooled regression analysis, correlation coefficient analysis and other diagnostic tests. Accordingly, the reliability of the questionnaire is tested using Cronbach's alpha and a satisfied value of 0.839 is obtained.

The results of regression analysis provide evidence to support the stated hypotheses. It is found that the variable of dividend policy, agency cost, information content of dividend possess perfect correlations with each other and could have positive impacts on the dependent variable. These results are confirmed according to the value of Durbin Watson which is around 2.0. The findings also suggest that agency cost and information content of dividends are likely to determine the pattern of dividend payments. Most importantly, shareholders wealth is critically influenced by dividend policy in the case of public limited companies in Nigeria. Thus, the research finds support for signalling model and confirms that dividend is relevant.

Moreover, Hashemijoo et al. (2012) investigate the impact of dividend policy on stock price volatility in Malaysia. The study focuses on consumer product companies listed on Bursa Malaysia between 2005 and 2010 with a sample of 84 firms. The study implies both dividend payout ratio and dividend yield to

measure divined policy. What makes this study different from the other reviewed studies carried out in developing countries is that this paper found a negative relationship between the two measures of divined policy and share price changes. Similarly, Mohd and Norli (2012) found a negative relation between dividend yield and stock price volatility in Malaysia between 2002 and 2011. Additionally, Shah and Noreen (2016) investigate the relationship between dividend policy and changes in share prices for non-financial firms listed in Pakistan between 2005 and 2012. The study uses 50 firms based on the behaviour of paying regular dividends to their shareholders. Using both fixed effect model and panel EGLS method, the findings suggest a negative association between share price volatility and the measures of dividend policy i.e. dividend yield and dividend payout.

Table 3.1

Summary of literature review

Author, Year	Sample	Duration	Method	Key findings
Baker, et al., 2018	Non-financial and non-utility firms listed on BIST	Dividend payers during Jan. 1, 2010 and Dec. 31, 2014	Survey-based research of corporation managers + Secondary data	They found evidence to support bird-in-the-hand theory but not for residual hypothesis of dividends, tax preference theory, and agency cost theory.
Dogan and Topal, 2014	Non-financial firms on BIST	2008-2011	Longitudinal analysis for 172 firms	Dividend payout ratio is positively associate with the ratio of Tobin's Q
Yilmaz and Gulay, 2006	Listed firms on BIST	1986-2003	Longitudinal analysis for 602 observations	Cash dividend payments significantly influences stock return and stock market's trading volumes
Shah and Noreen, 2016	Non-financial firms listed in Pakistan	2005-2012	Longitudinal analysis for 50 dividend payers	The findings suggest a negative association between share price volatility and the measures of dividend policy
Gul et al., 2012	companies listed on Pakistan	2005-2010	Longitudinal analysis for 75 firms	Evidence is found to support that dividend policy has significant impact on shareholders' wealth

Nishat and Irfan, 2004	listed firms in Pakistan	1981-2000	Longitudinal analysis for 160 firms	Both dividend yield and payout ratio have significant influence on the stock price volatility
Patra and Dhar, 2017	Case study of Apollo Hospitals Ltd in India	2004-2013	Time series analysis	Dividend policy is playing a significant role in maximizing shareholders value
Masum, 2014	Commercial Banks Listed in Bangladesh	2007-2011	Longitudinal analysis for 30 Banks	Dividend policy has a significant and positive consequence on stock prices
Hashemijoo et al., 2012	consumer product companies in Malaysia	2005-2010	Longitudinal analysis for 84 firms	The paper found a negative relationship between the two measures of divined policy and share price changes.
Mohd and Norli, 2012	Firms in Malaysia	2002-2011	Longitudinal analysis	The study found that dividend yield is negatively and significantly influence firm performance measured by stock price volatility.
Mokaya et al., 2013	Shareholders of Banks in Kenya	Survey questionnaire	Cross Sectional analysis for 100 shareholders using stratified method	A strong and positive correlation is found between dividend policy decision and market share value of NBK

Nwamaka, 2017	public listed companies in Nigeria	1995-2015 + Primary data	Longitudinal analysis for 10 firms	They found support for signalling model. The results indicate that firm value is significantly influenced by dividend policy.
Karpavicius and Yu, 2018	Non-financial firms of USA	1972-2016	Longitudinal analysis For 154,090 firm-year observations	Dividend payout ratio is positively and significantly associated to firm value. Dividend premium is higher for equity than for assets.
Hamza and Hassan, 2017	Technology Companies listed on NYSE and AMEX	2010-2014	Longitudinal analysis for 150 firms-year	Paying no dividends rises shareholders' stock return, whereas paying dividends does not have a significant impact
Hussainey et al., 2011	Listed firms on London Stock Exchange	1998-2007	Longitudinal analysis for 123 observations	The findings illustrate that there is a positive association between dividend yield and share price changes
Acker, 1999	Top 300 UK companies	1991-1995	Longitudinal analysis for 90 firms	Dividend cut and rise tend to significantly influence stock return volatility
Allen and Rachim, 1996	Australian listed firms	1972-1985	Longitudinal analysis for 173 companies	There is a significant negative correlation of stock price volatility with the dividend payout ratio but not with dividend yield.

3.2. IFRS application and compliance to it in Turkey

An accounting system can develop as a result of economic development and regulatory changes (Balsari and Varan, 2014). This research is a review paper to study the application of IFRS in Turkey over 2005-2014. Turkey's accounting practices has changed towards international harmonisation. They claim that IFRS implementation has been focused on by local academic literature because of its potential impact on the accounting, financial and economic related issues. Fair value measurements, IFRS reporting and convergence of tax are the most common studied subjects related to IFRS adoption in Turkey.

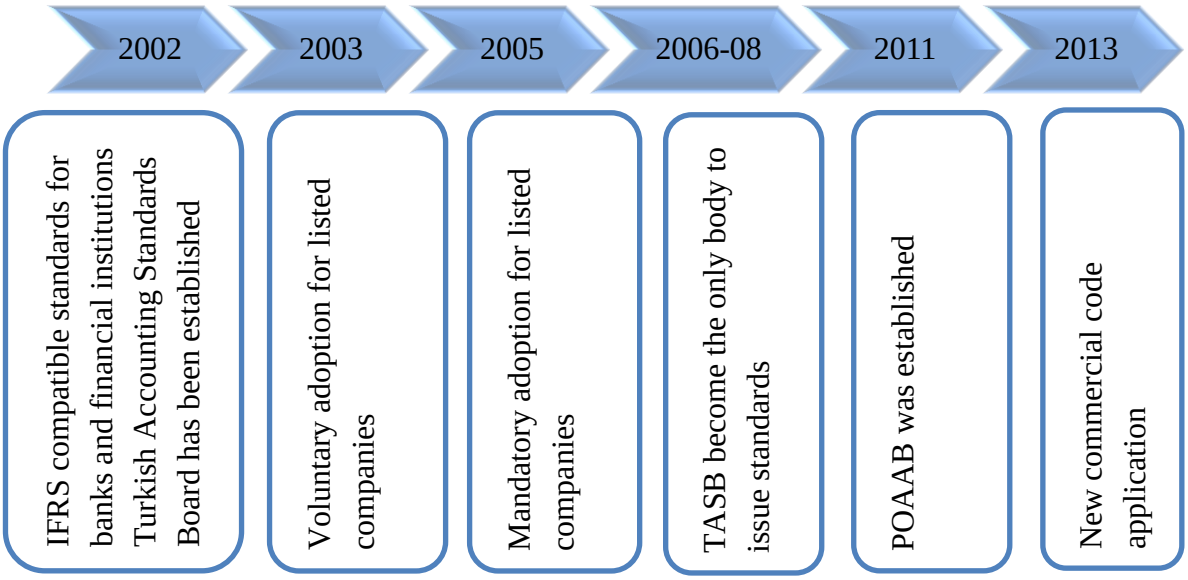

Figure 3.1: IFRS implementation process in Turkey

Source: Balsari and Varan (2014)

Because of its importance, many organisations in Turkey have contributed to the process of IFRS application such as The Banking Regulation and Supervising Agency (BRSA), Public Oversight Accounting and Auditing Standards Board (POAAB), The Capital Markets Board (CMB) and Turkish Accounting Standards Board (TASB). Figure 3.1 illustrates the process of IFRS implementation and international harmonisation process of accounting and auditing in Turkey. As it can be seen, Turkey mandated listed firm on

Istanbul Stock Exchange (Borsa Istanbul today) to represent their accounting information in accordance with IFRS since the financial year 2005.

Regarding the banks and financial institutions, standards compatible to IFRS have been issuing by Banking Regulation and Supervision Agency in Turkey. The major concern of this body is the transparency of financial institutions. It is empirically confirmed that IFRS adoption has influenced many subjects for instance quality of accounting information, value relevance, ratios and financial analysis (see, for example, Bahadır et al., 2016; Kilic and Uyar, 2017; Terzi et al., 2013; Uyar, 2013). Therefore, this impact cannot be neglected and still worth investigating.

3.3. Conceptual framework

Based on the theoretical and empirical literature we reviewed in the previous two chapters and in accordance with our research objectives, we can draw the conceptual framework of this research as follows:

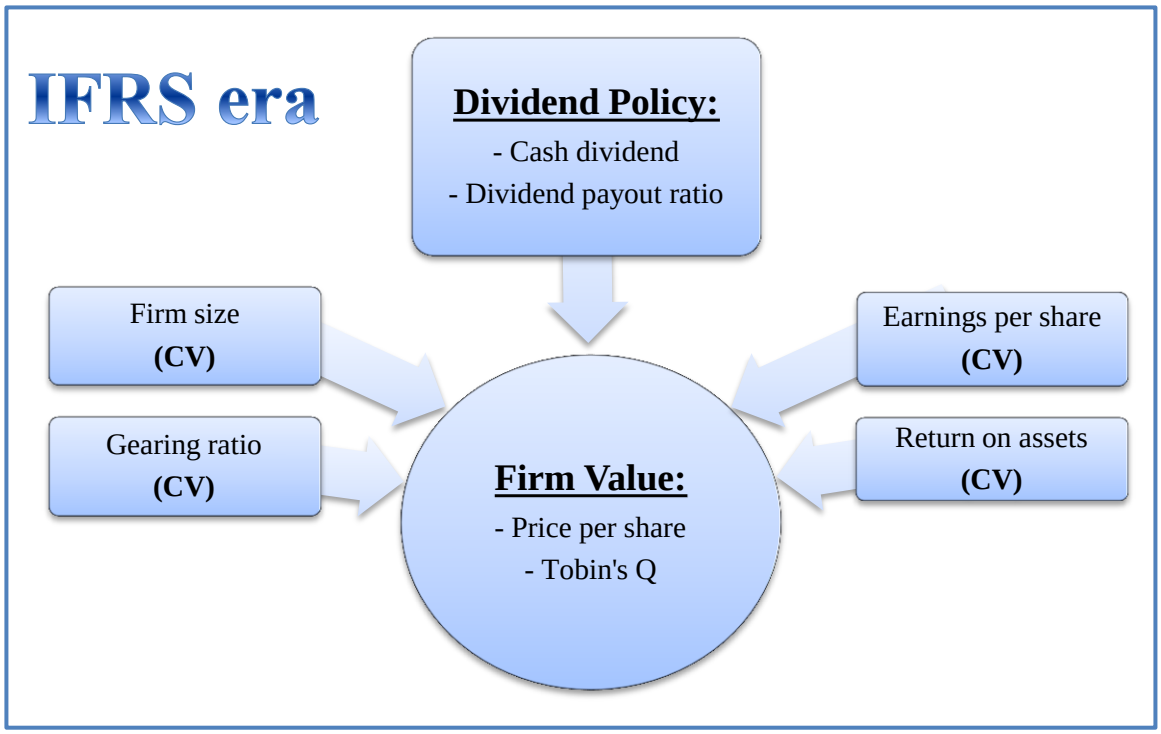

Figure 3.2: Theoretical framework of the study

The variables of this study are consistent with previous literature. Dividend policy is measured based on the two common used proxies of cash dividend

payments and dividend payout ratio. Firm value is also measured using two variables of price per share and Tobin's Q. Moreover, four control variables (denoted as CV) are included in the study to precisely identify the impact of dividend policy on firm value. This relation is considered over the period of the IFRS adoption 2005-2017 in Turkey.

3.4. Summary and research gap identification

In this chapter, we discussed the most important and contemporary studies that have been conducted on this subject. Those studies differ regarding the notion they provide, the method they use concerning data collection and analysis, and the results they obtain because of the different characteristics of the region and the markets that have undertaken. Moreover, we are able to notice that most of the studies are neglecting financial firm and they investigate non-financial firms except for the third study which only uses banking sector. This can bring limitations when generalising their results since financial firms have different characteristics regarding regulations for dividend policy.

In addition, we note that most of these studies are only employ the common variables which are theoretically believed to reflect dividend policy and influence firm value. Those variables are cash dividends and earnings per share. This is another deficiency characterized by these studies where not addressed to changes in regulations and their roles in influencing the value of the firm.

Investigating the subject of dividend policy in Turkey is important since Turkish regulators made major modifications in the regulatory framework of cash dividend policy rules during that period that we consider to examine. Therefore, the current research differs from past studies and can meaningfully contribute to the existent literature in two respects. First, it studies financial firms in an emerging market that has undergone major changes to integrate with world financial markets. Second, the study attempts to provide insights of what extend do the changes in financial regulations, such as IFRS implementation, influences the dividend policy to have a different impact on firm value.

CHAPTER 4
RESEARCH METHODOLOGY

This chapter is divided into three main sections. Section 4.1 describes the sample and data collection method. Section 4.2 develops a set of hypotheses regarding the impact of dividend policy on firm value along with identifying the variables and specifying research models. Finally, section 4.3 describes and explains the utilised research methods to investigate the proposed hypotheses of the study.

4.1. Sample and data

4.1.1. Sample selection

We used the Borsa Istanbul's Public Disclosure Platform (CEIC, 2018) and based on it we draw the research sample in accordance with several criteria using. We firstly considered the entire firms listed on Borsa Istanbul and whole shares index for the period of 2005 - 2017. The total number of the firms was 416 firms across all the sectors in August 2008 (see figure 4.1). Second, we excluded all companies in non-financial sector because as it is argued by (Baker et al., 2018) non-financial firms follow different regulations with regard to dividend and investment policies compare to financial firms. Another reason for limiting our research sample to financial firms listed on BIST is because we concentrate on that sector which is rarely investigated in the literature particularly in Turkey. After these exclusions, there were 117 financial firms including banks, financial intermediary, insurance, private pension, brokerage houses, currency offices and some other types of companies. Moreover, some financial firms were also excluded because of data unavailability for the whole period. In doing so, we could generate a balanced panel data for our investigation, consistent with Hamza and Hassan

(2017), Masum (2014) and Qanoun (2013). Consequently, these selection criteria result in 975 firm-year observations of the BIST-listed financial firms. Yearly data was collected form Borsa Istanbul data store (CEIC) and DataStream database.

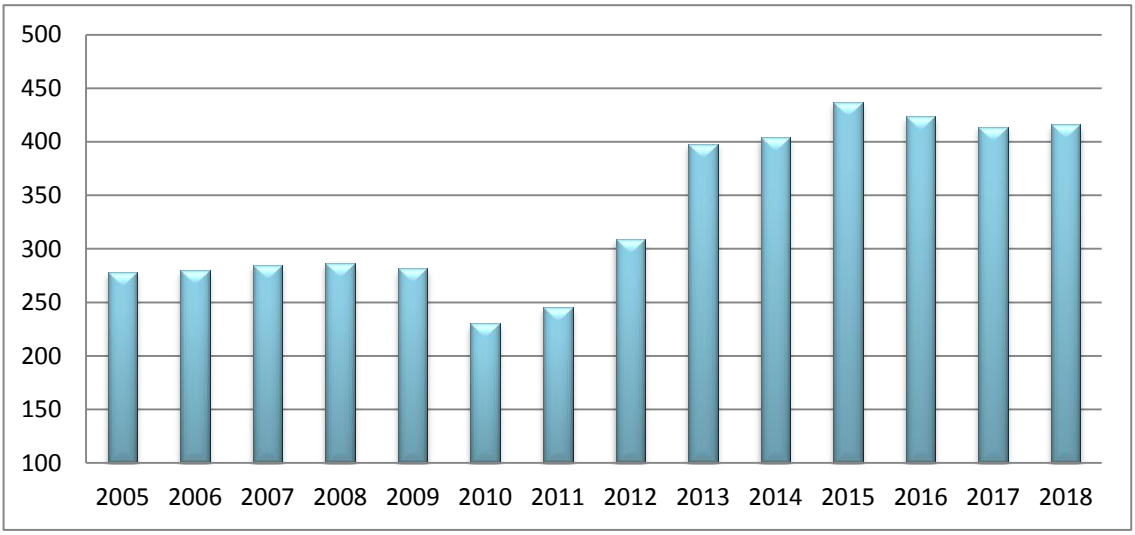

Figure 4.1: Number of BIST-listed companies

Source: CEIC data Borsa Istanbul (2018)

4.1.2. An overview of Turkey financial market

As we mentioned in earlier sections of this study, we aim to contribute new evidence to the literature by extending empirical study on dividend policy and firm value in a developing economy. As one of the most important emerging markets, we particularly focus on Turkey. What makes the country important is its strategic location between Middle East and Europe in addition to being a candidate member of the EU. Moreover, the country adopted several main changes over the past 15 years such as the compliance with the IMF and the IFRS. Regulators in Turkey also issued new rules and regulations regarding some important issues in the financial sector (see figure 4.2) which is argued to generally enhance the growth in that sector.

Istanbul Stock Exchange (ISE) emerged in the middle of 1980s. Despite of all the progresses in ISE, the listed firms operated under a noticeably dissimilar regulatory setting in comparison to developed markets till early 2000s. Later,

it combined with the Derivatives Exchange of Turkey and the Istanbul Gold Exchange and formed Borsa Istanbul (BIST). 49% of the shares are owned by the Turkish government. Borsa Istanbul is the only exchange body of Turkey. Therefore, it lonely represents the entire financial market for the country. The asset size of the Turkish financial industry has grown rapidly of the last decade, according to the Turkey investment report (2018). More details are illustrated in figure 4.3. Over the last 15 years, several regulatory changes made by the Turkish regulatory and operated in Borsa Istanbul (look at figure 4.2). One major example of such changes is IFRS mandatory implementation in 2005. Since then, both accounting profession and business are entering a novel stage with the contemporary commercial law concentrating on more accountability, high transparency and robust corporate governance. Prior to this stage, Turkish corporations are mandated to pay out 50% of their yearly income as dividends (Kirkulak and Kurt, 2010). This had left managers of BIST firms with less power to set their dividend policies and, in turn, they were less able to influence firm value.

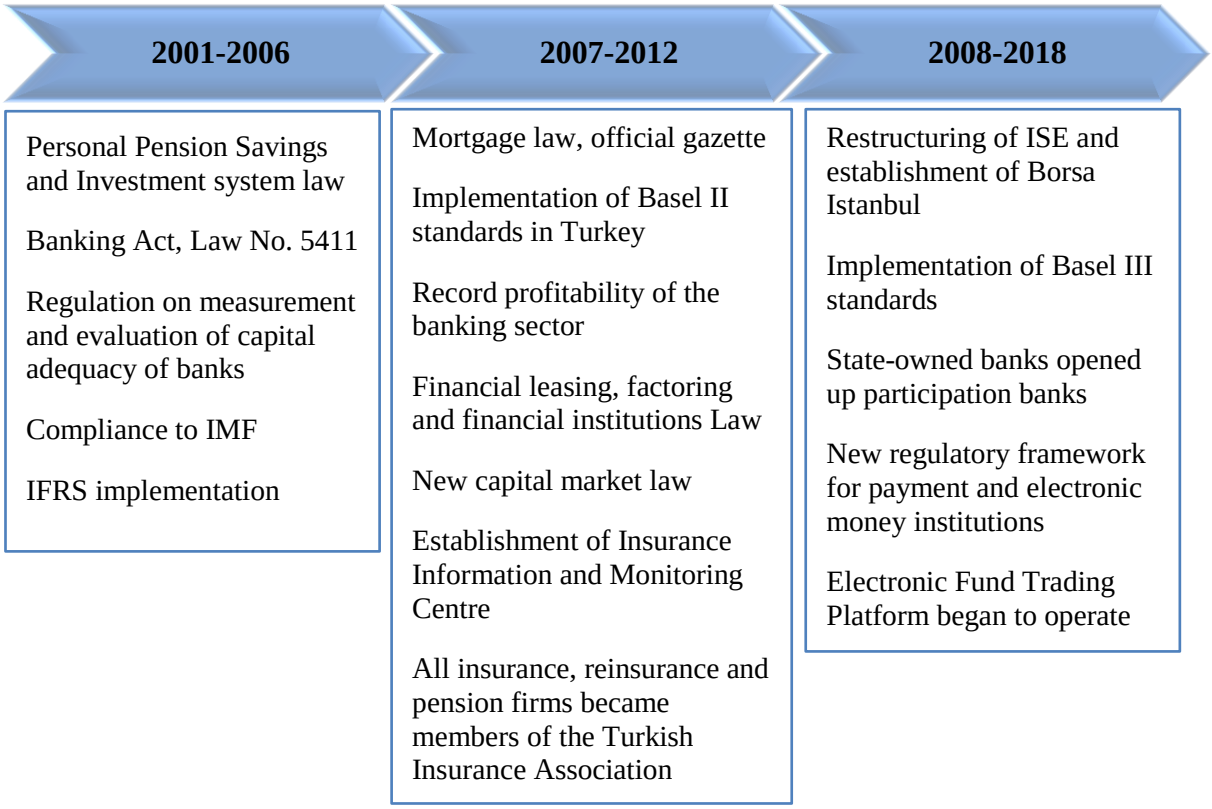

Figure 4.2: Milestones of financial sector in Turkey

Source: *Turkey investment report (2018)*

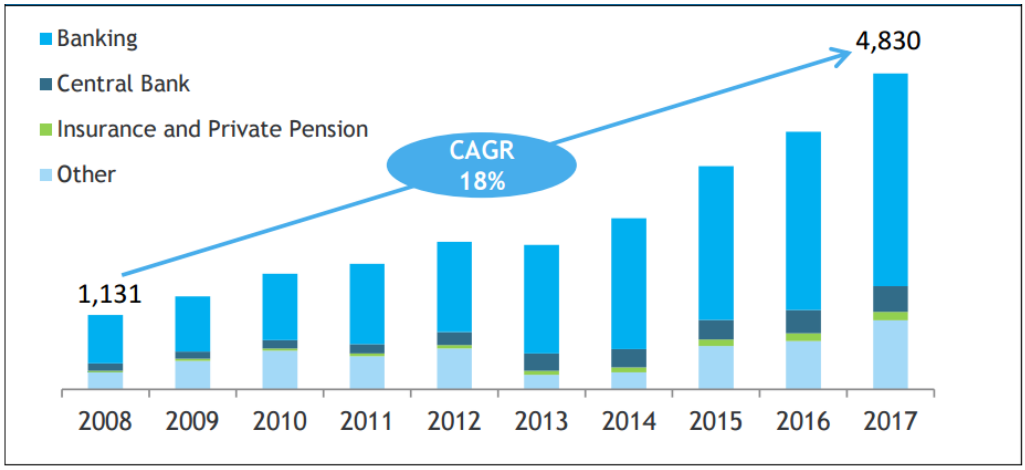

Figure 4.3: Asset size of Turkish financial sector TL billion

Source: Turkey investment report (2018)

Financial services in Turkey provide vital opportunities in order to support growth. The regulatory modifications and structural renovation implemented by Turkish government in the early of 2000s led to keep financial sector strong during global economic and financial crisis in 2009 (investment report, 2018). Those reforms resulted in the enhancement of investor confidence highly in a way that investment has increased in the sector by over $50 billion during the past one and a half decade. 70% of the financial sector in Turkey is dominated by banking services (look at figure 4.3). However, the potential growth of insurance services and other financial activities cannot be neglected as well. There are 51 banks in Turkey with $550 billion in 2017. Figure 4.4 illustrates information on percentage regarding the distribution of the Turkish banking sector into deposit banks, investment and development banks and participation banks. We can clearly see that two third of the banks consists of deposit banks.

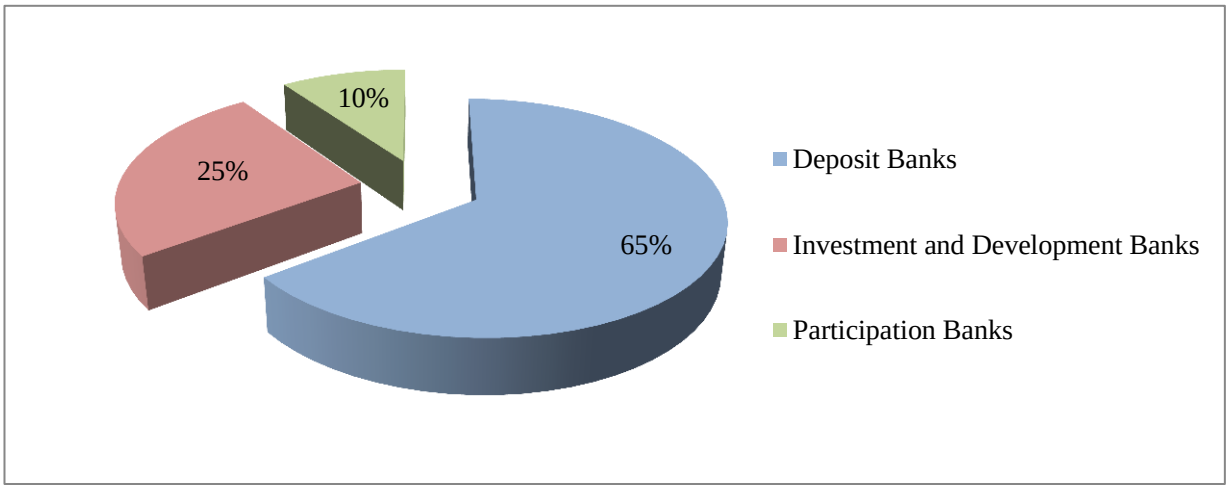

Figure 4.4: Banking sector in Turkey

Source: Turkey investment report (2018)

The total assets of 21 of those banks hold considerable foreign investment in a way which reaches 30%. This possibly makes the financial decisions such as dividend payments very significant in those firms because investors and shareholders from various financial backgrounds tend to possess different perspectives regarding dividend policy. The largest banks according to their total assets size are Zirrat bank, Turkiye IS banks, Garanti bank, Ak bank and Halk bank. These five banks invest 50% of the total assets of the entire banking sector in Turkey. This is illustrated in figure 4.5.

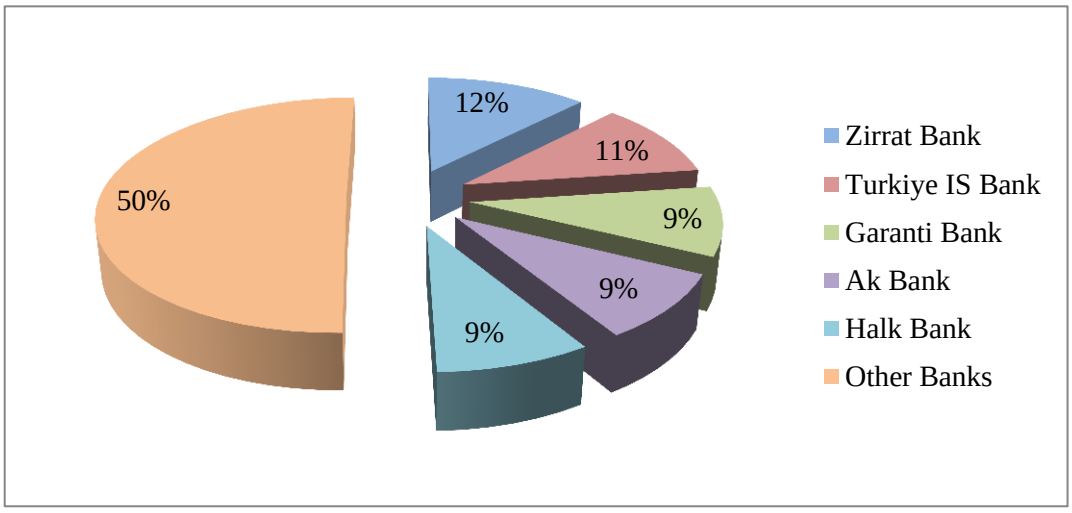

Figure 4.5: Total assets size of Turkish banking sector

Source: CEIC data Borsa Istanbul (2018)

Regarding the insurance sector in Turkey, the sector is also growing along with other sectors in financial services industry. The sector comprised almost 5 per cent of the total assets of all financial services industry in 2017. That rate has shown an upward slope over the last decade and it is expected to grow further. The authorised Turkish insurance companies operate as non-life insurers, life and pension companies, pure life insurers, and reinsurers. The non-life sector of insurance dominated around 90% of Turkish market premiums.

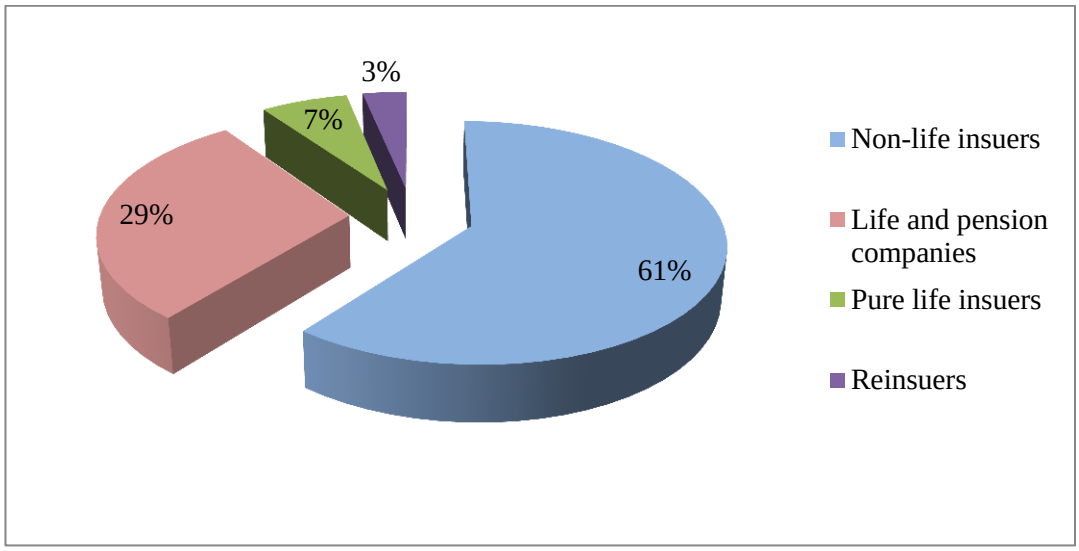

Figure 4.6: Distribution of insurance sector in Turkey

Source: Sakallioğlu (2017)

4.2. Variable construction model specification

4.2.1. Firm value

Firm value for Turkish financial institutions is the dependent variable of this study. Since the study main aims to investigate the impact of dividend policy on the value of listed financial firms on BIST. In other words, the paper examines whether dividend payment is value relevant. There are two common variables widely employed in the literature to measure firm value; firm's market price per share and Tobin's Q. Therefore, the current study uses both measures to capture firm value and for robustness test.

First, stock price per share is extensively used in the literature to measure the value of firm in the market (see, for instance, Nwamaka, 2017; Ofori-Sasu

et al., 2017; Travlos et. al., 2015; Widyastuti, 2016). Stock price per share is multiplied by the number of common shares outstanding to calculate total fair value of the company (Oyinlola and Ajeigbe, 2014). We, therefore, consider the market value of the stock to be the investor's primary criterion for assessing the financial condition of the institution and its potential for growth and sustainability, as it is believed to reflect the value of the institution. In order to obtain the best representation of this variable, we adopted the closing share price for the firms over the studied period, consistent with previous literature.

$$FV = PPS \times CSO$$

Where;
FV represents firm value of financial firms,
PPS is the price per share of those firms in the stock market and
CSO is the number of common shares outstanding.

Second proxy to measure firm value is Tobin's Q. This proxy is also commonly used in the literature (see, for instance, Kim at al. 2016; Meeamol et al., 2011). The literature states that market value of shares can measure firm valuation. The equation to calculate Tobin's Q is simplified by Chung and Pruitt (1994). They claim that the proxy can be measured as the sum of market value of common and preferred shares plus market value of liabilities divided by the total assets as book value. The market value of liabilities can be considered the book value (Le and Phan, 2017). Therefore the equation can be shown as follows:

$$Q = \frac{(MP \times CSO) + MVP + MVL}{BVA}$$

Where;
MP denotes market price of common share
CSO stands for common shares outstanding
MVP is market value of preferred share
MVL is market value of liabilities
BVA represents book value of assets

4.2.2. Dividend policy

Dividend policy is measured by the two know proxies of cash dividends per share and dividend payout ratio. Current cash dividend payment is considered as one of the most important forms of dividend policy. And it is also the most widely used method o profit distribution by firms. Cash dividend is also used in the literature to measure the dividend policy followed by the firm (see, Kilincarslan, 2017; Qanoun, 2013). The proxy is calculated by dividing the cash dividends from the generated income on the number of common shares outstanding. Additionally, this research uses dividend payout ratio to measure dividend policy, consistence with previous studies such as Anton (2016) and Hakeem and Bambale (2016). The proxy ratio is calculated by dividing dividend per share over earnings per share. This gives more detail than cash dividend proxy because it shows how much a company earned and what portion of it was distributed to shareholders. Therefore, dividend policy is a function of cash dividends and dividend payout ratio, as follows:

$$DIV = f(CDP, DPR)$$

Where;
DIV denotes dividend policy
CDP represents cash dividend payment
DPR is dividend payout ratio

In order to identify the impact of dividend policy on firm value, we separately regress the two employed measures of firm value, price per share and Tobin's Q, on the proxies of cash dividend payments and dividend payout ratio. Equation 1 and 2 clarifies these regressed relationships. It is theoretically expected that dividend policy influences firm value (Baker et al., 2018; Karpavicius and Yu, 2018). This means that investors do care about dividend payments when making investment decisions. The following models

are used to analyse the association between dividend policy and firm value for BIST financial listed firms:

$$FV = f(DIV)$$

$$FV = \beta_0 + \beta_1 DIV$$

$$PPS_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \varepsilon_{it} \quad \text{..... (1)}$$

$$Q_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \varepsilon_{it} \quad \text{..... (2)}$$

Where;
i represents a firm at time t, β_0 is regression intercept, β_1 and β_2 are parameters of the explanatory variables, and ε is stochastic error term. Accordingly, hypothesis 1 and 2 are developed in order to achieve the objective of the study.

H1: dividend policy is positively correlated with firm value measured by price per share.
H2: dividend policy is positively correlated with firm value measured by Tobin's Q.

4.2.3. Control variables

This research uses four control variables to the model aiming to find the precise influence of dividend policy upon firm value. These control variables have been chosen based on their usage by other studies in the literature. (1) Earnings Per Share (EPS) is calculated by total income divided by number of common shares outstanding. Since dividend per share is one portion of earnings per share; we also include earnings per share as an independent variable in specifying the regression model. Nwamaka (2017) and Masum (2014) reported that there is a positive relation between earnings per share and firm value. (2) Firm Size (SIZ) is another control variable. Book value of total assets is a proper measure for firm size. Baker and Kilincarslan (2018) stated that there is a direct relationship between the size of a firm and its

performance in the market. (3) Return on Assets (ROA) is measured as firm's net operating income divided by total book value of assets. Amollo (2016) and Masum (2014) utilise this ratio and claim that it can positively influence firm value. (4) Gearing Ratio (TDR) is the fourth control variable we use in our research model. It is a measure of the firm's financial leverage. Gearing is calculated as total debt divided by total equity. Chavali and Rosario (2018) and Jaisinghani and Kanjilal (2017) claimed a positive relation between gearing ratio and firm performance.

We take natural logarithm value of the variables which are not in percentage form such as price per share and total assets in order to reduce deviation in the data and fit the figures into the model, according to Enders (2008). However, we cannot take lag value of earnings per share because it contains negative values. Therefore, the following additional hypotheses are developed to test:

H3: Earnings per share has positive relation with firm value.
H4: Firm size has positive relation with firm value.
H5: Return on assets has positive relation with firm value.
H6: Gearing ratio has positive relation with firm value.

4.2.4. IFRS adoption

The adoption of IFRS by listed firms on Borsa Istanbul in 2005 is considered as a major regulatory change in the stock market. This key change is expected to enhance the relationship between dividend policy and firm value. Thus, it is hypothesised that:

H7: IFRS adoption enhance the relationship between dividend policy and firm value of financial firms listed on BIST over 2005-2017.

4.3. Model specification

According to the expected impacts of the explanatory and control variables on the dependent variables, the extended regression models are defined as follows:

$$lnPPS_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$$

$$Q_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$$

Where;
lnPPS is the natural logarithm of annual price per share for firm *i* at time *t*; *Q* is Tobin's Q proxy to measure value of firm *i* at time *t*; *CDP* is cash dividend payment measured on annual base for firm *i* at time *t*; *DPR* is dividend payout ratio for firm *i* at time *t*; *EPS* is annual earnings per share for firm *i* during period *t*; *lnSIZ* is firm size based on total assets for firm i at time t; *ROA* is return on assets for firm *i* during period *t*; *TDR* is total debt ratio to measure gearing for firm *i* at time *t*; β_0, β_1-β_6 are the intercept and parameters of explanatory and control variables; and $\boldsymbol{\varepsilon}$ is stochastic error term.

In addition, consistent to Alfaraih (2009), we use the obtained annual association between dividend policy and firm value measures, as measured by the adjusted R2 to investigate any possible modification in the relationship between dividend policy and firm value over 2005-2012. The adjusted R2 is regressed on a time trend variable, as shown below:

$$Adj.R2_{fv} = \alpha_0 + \beta_1 \mathrm{TIME} + \varepsilon$$

Where Adj. R^2_{fm} is the adjusted R^2 values have been obtained from every two year panel regression of firm value, β is the coefficient of TIME trend.

4.4. Research design

This research employs an explanatory research design to investigate the impact of dividend policy on the firm value for listed financial firms in Turkey. Bryman and Bell (2015) point out that explanatory research is as appropriate method to examine the relations that involve numerous variables. Furthermore, Saunders et al., (2009) state that explanatory research can be used for problems that have not been obviously defined. Regarding data, longitudinal research design is adopted and with a simultaneous usage of a set of reasonable variables. Correlation coefficient, several different types of multiple linear regression and some other diagnostic tests will be used in order to investigate the relationship for BIST financial firms during 2005-2017.

4.5. Chapter summary

This chapter provided an in depth information regarding research methodology. The chapter described the technique used for sample selection and identified data collection tools. BIST financial firms during 2005-2017 are reasonably selected. The variables are identified and described in details in order to response the research objectives. Additionally, research models are specified in a way capture the expected relation between dividend policy and firm value for the sample firms in Turkey.

CHAPTER 5
DATA ANALYSIS

In this chapter, we analyse the data based on several tests in order to understand the nature of the data and to investigate potential relationships among the variables of our research models. First section illustrates an overview to the measures of firm value and dividend policy of our sample research through diagram figures. The description statistics and correlation coefficient are presented in section 3 and 4 to provide a preliminary understanding about the variables and their bivariate association with one another. In section 5, the variables are checked for stationary. Finally in section 6, the data is analysed and the results of different regression models are interpreted to investigate the impact of dividend policy on firm value in Turkish financial firms listed on BIST.

5.1. Trends of the key variables

We measure firm value based on two commonly used measures; price per share and Tobin's Q ratio. Price per share is the annual close price of the firms in the stock exchange market. Figure 5.1 shows fluctuations in share price for the sample firms. Horizontal axis represents the financial firms of our research sample while the vertical axis is the log of price per share. We took log of price per share in order to reduce the variance across the different firms. As we can see from figure 5.1, market price per share is highly volatile for the firms of our sample. In other words, firm share price of an individual firm has changed from time to time. This indicated that the market is very responsive to the financial news form the market and from the organisations themselves. Financial news such as dividend declaration and dividend payment are among the most affective ones to effect share price of the firm

(Hussainey et al., 2011). Investors and shareholders are care about the dividend which is a certain return for the stock investment. Nwamaka (2017) argues that dividend payment can reduce uncertainty with shareholders and, in turn, encourages them to hold their shares and increase firm value accordingly. Additionally, we can clearly see that there are firm that their shares are highly priced in the market and there are also firms with low prices for their shares. This indicates that our sample contains various financial firms listed on BIST with regard to their share prices.

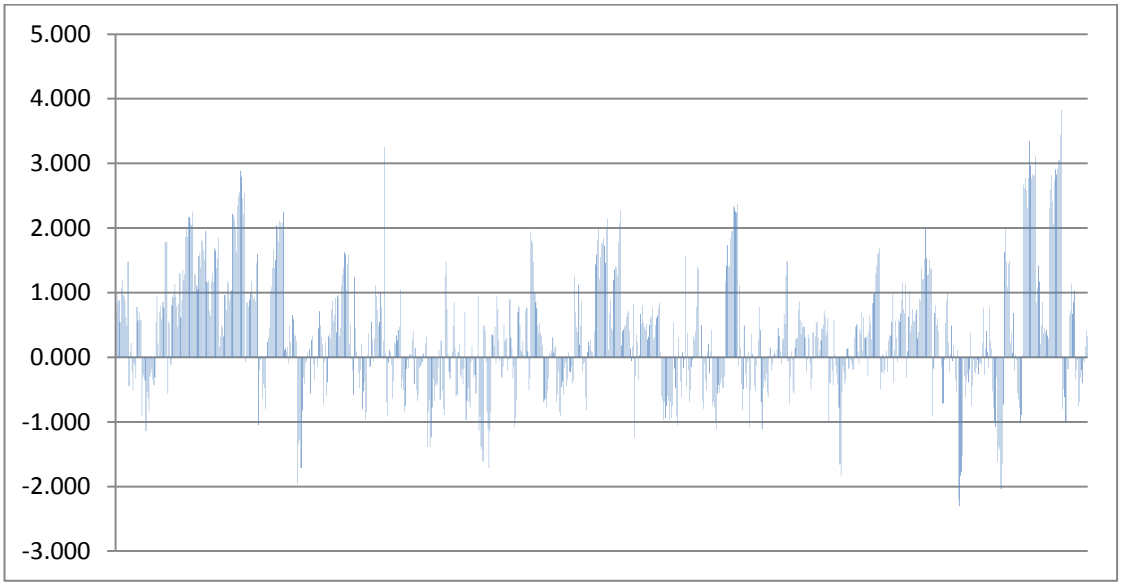

Figure 5.1: Annual price per share for Turkish financial firms over 2005- 2017

Source: prepared in Excel based on the data

The second dependent variable which we use to measure firm value is Tobin's Q ratio. Figure 5.2 illustrates the distribution of this ratio for the sample firms. Firms are represented by the horizontal axis of the figure. Generally, the ratio is under 1% except for some observations. This indicates that the market values of the firms are relatively close to the book values of the firms for financial firms listed on BIST during 2005-2016.

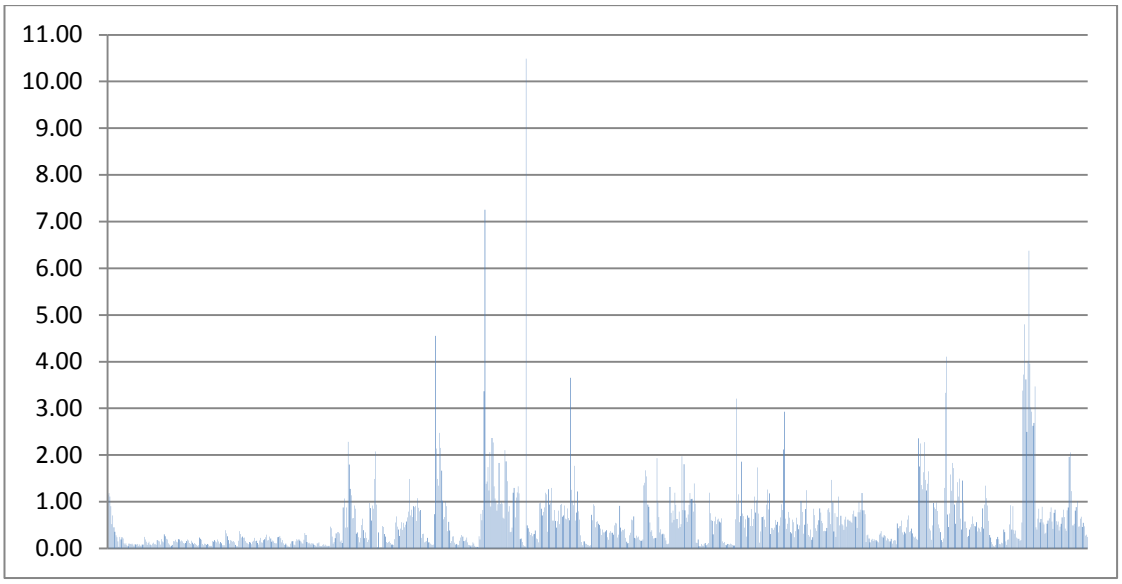

Figure 5.2: Tobin's Q ratio for Turkish financial firms over 2005- 2017

Source: prepared in Excel based on the data

Furthermore, the pattern of cash dividend payout for the sample firms is also illustrated. Cash dividend payment is the key measure of dividned policy followed firms of our sample study. Firms who pay high cash dividends assumed to follow high dividend policy whereas the dividend policy assigned as low when there is little dividend. As it is obvious from figure 5.2, BIST financial listed firms were generally not following high dividend policy over the studied period. Moreover, we observed that out of 975 firm-year observation, based on the frequency distribution of cash dividend variable, there were 601 observations with zero dividend. This means that the majority of the firms of our sample paid no dividend at the end of the most financial years we considered during 2005-2017 which companies followed IFRS regulations in preparing their financial statements. Therefore, it can frankly be said that financial firms listed on BIST between 2005 and 2017 followed low dividend policy and rarely paid out dividend to their shareholders.

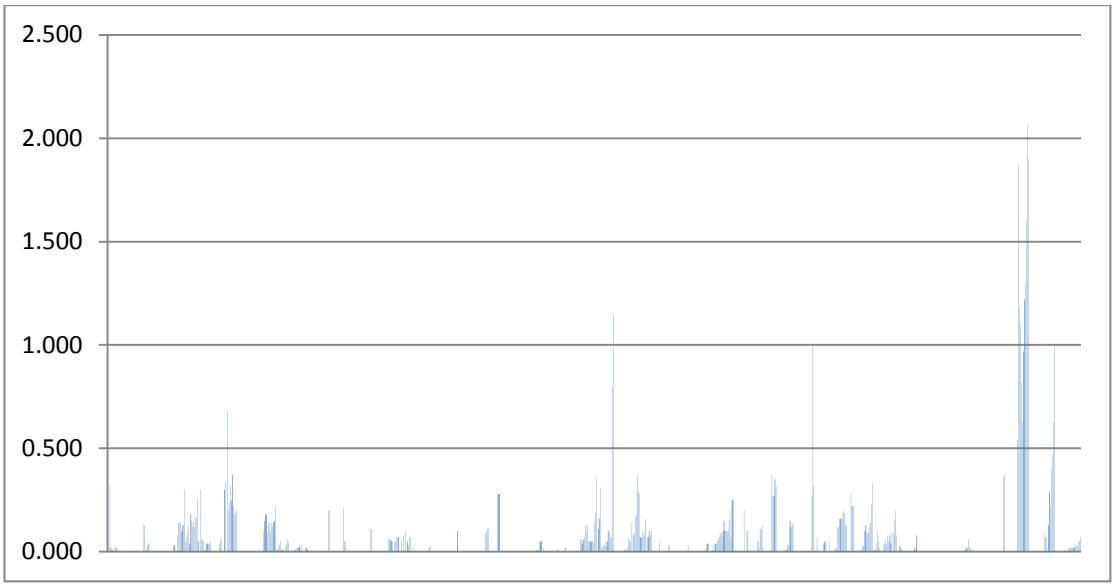

Figure 5.3: Cash dividend payments of sample firms over 2005- 2017

Source: prepared in Excel based on the data

5.2. Descriptive statistics

It is also important to have a look at the descriptive statistics of the variables we used in this study in order to understand the basic definition of the measures and their distributions. Table 5.1 shows logarithm mean, standard deviation, distribution range, and probability of distribution test for all the used variables. Mean of the natural logarithm of share price is 0.342 with a considerably high standard deviation 0.925. The shares were priced from 0.1 to 46 Turkish Liras for stocks of different firms. Mean value of Tobin's Q ratio is 0.57% with relatively lower standard error compared to price per share. This indicates that that market value is greater than book value as an average for the whole sample firms. The highest cash dividend paid by those firms during financial years from 2005 to 2017 is 10.49 Turkish Liras. The mean value for cash dividend is 0.056 with a standard error 0.175. The range of earnings per share is around 10 Turkish Lira with the lowest value -4.20 and the highest value 14.31 earned by the firms of our sample over 2005-2017. Our sample is widely distributed regarding the size of the firms measured by book value of total assets. Return on assets measures the profitability of the firms. The mean is 0.036 with a low standard error 0.03 ranging from -3% to 6.9%. Additionally, logarithm mean of leverage

measured by total debt ratio is 0.208 indicating that on average 20.8% of the total assets of our firm sample is financed by debt and the rest is from equity. There are financial firms that mostly 100% of their funds generated through debt. However, there are also firms with zero rate of debt in their capital structure.

Table 5.1: Descriptive statistics

Details	lnPPS	Q	CDP	DPR	EPS	lnSIZ	ROA	TDR
Mean	0.342	0.570	0.056	0.1267	0.263	12.935	0.036	0.208
Std. Dev.	0.925	0.368	0.175	0.893	1.143	3.043	0.033	0.266
Maximum	3.829	10.49	2.060	14.286	14.305	19.897	6.910	0.999
Minimum	-2.303	0.014	0.000	-8.000	-4.197	7.024	-3.007	0.000
Jarque-Bera p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

The probability distribution of the variables is also considered and shown in table 5.1. In statistics, the normal distribution is the most essential and most commonly applied distribution to ensure that the data is randomly distributed and is not predictable. The probability values of Jarque-Bera test show that all the variables are normally distributed. However, the standard deviations are largely different among the variables.

5.3. Correlation coefficient

Pearson correlations coefficient measures the bivariate association between each pair of our research variables including all dependent and explanatory ones. The values are between -1 for perfect negative linear correlation and +1 for perfect positive linear correlation. This test is also very commonly used in sciences to study the type of the relationship between two variables. Nonetheless, the test cannot identify the direction of the impact from one variable to another one.

Table 5.2: Correlation matrices

	lnPPS	Q	CDP	DPR	EPS	lnSIZ	ROA	TDR
lnPPS	**1.00**							
Q	0.171***	**1.00**						
CDP	0.439***	0.310***	**1.00**					
DPR	0.048	0.019	0.161***	**1.00**				
EPS	0.393***	-0.018	0.321***	0.022	**1.00**			
lnSIZ	0.459***	-0.444***	0.070**	0.015	0.169***	**1.00**		
ROA	0.009	0.053*	0.091***	0.044	0.142***	0.020	**1.00**	
TDR	-0.043	-0.328***	-0.124***	-0.044	-0.029	0.363***	0.003	**1.00**

*** Correlation is significant at the 1% level, ** significant at the 5% level, * significant at the 10% level (two-tailed).

Correlation coefficients are presented in table 5.2. According to the results, all the correlations are moderate because the bivariate correlation coefficients are not close to the value of perfect correlations. The highest relationship we observed is a positive association 45.9% between lnPPS and lnSIZ which is still seen as a moderate correlation. There is a reasonable correlation, 43.9%, between price per share and cash dividend payment which indicates a positive relationship between dividend policy and firm value. Similarly, a positive relationship, however slightly weaker, is found between Tobin's Q ratio and cash dividends as 31%. This further confirms the relationship between dividend policy and firm value of financial firms listed on Borsa Istanbul. Thus, we can see that the measures of dividend policy and firm value tend to increase and decrease together. Dividend payout ratio positively correlated to the measures of firm value. However, the correlation is significantly weaker compared with for cash dividends. Positive associations of EPS, ROA and lnSIZ with PPS are also is also seen in the results. Nonetheless, total debt ratio is negatively related to market price per share by 4.3%. Additionally, EPS, lnSIZ and TDR are negatively correlated with Tobin's Q ratio by 1.8%, 44.4% and 32.8% respectively.

5.4. Panel unit root test

It is crucial to check for unit root in the mean of the variables we use in this study. non-stationary or trending behaviour in the mean is very common for financial time series and panel data for instance in stock price. Unit root can mislead the results of the study and therefore the findings would be biased. Therefore, one should consider this issue before conducting the regression and interpreting the results. A vital econometric assignment is deciding the most fitting type of the pattern in the data. For instance, in ARMA modeling the information need to be changed to stationary shape preceding investigation. If a trend presence in the data, at that point some type of pattern expulsion is mandatory to perform. There are two widely used methods in the literature which helps in removing trends in data; time-trend regression and first differencing procedure. Time trend regression is suitable for trend stationary I(0) while differencing is appropriate for I(1). Finally, if the variables are non-stationary I(0), cointegration test must be performed to identify if there is any long-run equilibrium relationships among I(1) variables.

Table 5.3: Panel unit root tests at level

Variables	LLC t*	ADF Chi-square	PP Chi-square	Result
lnPPS	-10.16***	238.83***	214.59***	Reject H0
Q	-93.93***	331.48***	313.08***	Reject H0
CDP	-4.33***	195.59***	210.41***	Reject H0
DPR	-24.55***	367.61***	418.56***	Reject H0
EPS	-7.10***	377.10***	484.38***	Reject H0
lnSIZ	-3.86***	136.45	193.77***	Reject H0
TDR	-50.55***	223.422***	239.05***	Reject H0
ROA	-28.283***	494.259***	623.859***	Reject H0

*** Correlation is significant at the 1% level, ** significant at the 5% level, * significant at the 10% level (two-tailed).

The current study uses panel data to investigate the relation between dividend policy and firm value. Common panel unit root tests are Levin, Lin & Chu (LLC) test, Augmented Dickey-Fuller (ADF) test, and Phillips-Perron

(PP) test. We applied the three tests for robustness in the results of unit root test. The null hypotheses of all the three tests are unit root presence whereas the alternative indicates there is no unit root and the variables are stationary at level. The level of confidence interval we apply is 95% across the tests.

Table 5.3 show the results of those tests for all the variables used in this study. The three tests for units root confirm together that all the variables of our study are stationary in level I(0) except for lnSIZ which is still stationary at level based on LLC t* and PP chi-square but not stationary according to ADF test. For all the variables, we can reject the null hypotheses of unit root test at the 1% level.

5.5. Regression analysis and Interpretations

To analyse the level and the direction of the association among the variables, we apply several regression analysis. This is performed after confining for firm characteristics. Usually, pooled Ordinary Least Square (OLS), Fixed-Effect (FE) and Random-Effect (RE) models are the most utilized strategies for estimating panel data in corporation finance studies (see, for example, Abdullah, 2013; Budagaga, 2017; Karpavicius and Yu, 2018).

OLS estimators are consistent and unbiased if the residuals are self-ruling to the vector of independent and control factors. Nonetheless, firm specific effect is commonly observed in non-experimental studies. Accordingly, FE and RE models work superior to pooled OLS in light of the fact that they represent particular error fragment at firm level. In addition, the Hausman test is performed to recognize the best model among FE and RE. the results are then discussed accordingly.

5.5.1. Pooled OLS regression

To investigate the relationship between dividend policy and firm value, we firstly applied pooled OLS technique. The dependent variables of our study separately regressed on the explanatory variables a long with the control variables. Table 5.4 illustrates the results of the regression models. Price per

share is the depended variable in model 1 and used as the first measurement of firm value. In model 2, Tobin's Q which is the second measurement of firm value is the dependent variable.

The results of model 1 show that the impacts of all the explanatory and control variables are statistically significant at the 1% level except for dividend payment ratio. They can together explain 44.17% variance in the dependent variable that is lnPPS. Moreover, the F-statistics confirm that the model is good fitted since the probability of the test is significant at 99% confidence interval. This means we can reject the null hypothesis that there is no differences between the variance (H_0: $\sigma^2_1 = \sigma^2_2 = \sigma^2_3 = \ldots = 0$) in favour for the alternative hypothesis. Therefore, we can confirm the good fitness of model 1.

Precisely, the results of model 1 show that cash dividend payment has a positive influence on price per share and it is significant at the 1% level. Every 1% increase in cash dividend payment leads the price per share to increase by 172.5% with the standard deviation of 0.137. In another word, high dividend paid by listed financial firms in Turkey significantly increases the price per share for those firms in BIST. However, the impact of dividend payout ratio is not statistically significant. Earnings per share and firm size have positive impact on price per share by 0.173 and 0.140 respectively at the 1% level. Nonetheless, the coefficients of return on assets and total debt ratio show that the two variables tend to possess negative impacts upon PPS by 18.8% and 57.1 respectively. In addition, the coefficient of the constant indicate that, holding all the variables constant, price per share of the financial firms in Turkey has decreased by 148.5% over the period 2005-2017.

Additionally, the results of model 2 show that CDP is positively correlated to the ratio of Tobin's Q as 1% increase in cash dividend payment increases market value over book value by 146% in the 99% confidence interval. This emphasises that cash dividend has a positive influence on firm value of the listed financial firms on BIST. Although the impact of DPR on Tobin's Q is negative, it is yet not significant at the 5% level. EPS, lnSIZ and TDR have

negative influences on Tobin's Q ratio 4.5%, 9.9% and 39.6% respectively. The ratio of Tobin's Q for the sample firms has increased over the period 2005-2017 by an average of 186.1%, holding the impact of all the explanatory variables constant.

Table 5.4: Pooled OLS regression

Variables	Model (1) lnPPS is the dependent		Model (2) Tobin's Q is the dependent	
CDP	1.725***	(0.137)	1.460***	(0.120)
	0.000		*0.000*	
DPR	-0.0219	(0.025)	-0.031	(0.022)
	0.385		*0.162*	
EPS	0.173***	(0.021)	-0.045**	(0.018)
	0.000		*0.014*	
LNSIZ	0.140***	(0.008)	-0.099***	(0.007)
	0.000		*0.000*	
ROA	-0.188**	(0.078)	0.105	(0.067)
	0.015		*0.118*	
TDR	-0.571***	(0.090)	-0.396***	(0.079)
	0.000		*0.000*	
C	-1.485***	(0.099)	1.861***	(0.087)
	0.000		*0.000*	
Adj. R-squared	44.17		33.57	
F-statistics	129.42		81.52	
Prob (F-statistic)	0.000		0.000	
Observation	975			

$lnPPS_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$ ……. (1)

$Q_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$ ……. (2)

Probability values for coefficients are in italic, *** Correlation is significant at the 1% level, ** significant at the 5% level (two-tailed); standard errors are in brackets.

The results of model 2 show that the explanatory and control variables can together explain 33.75% disperse in the dependent variable which is Tobin's Q ratio. This is claimed based on the adjusted R-squared obtained through

the regression model 2. Moreover, the F-statistics confirm that the model is good fitted since the probability of the test is significant at 99% confidence interval, indicating that we can reject the null hypothesis that there is no differences between the variance (H_0: $\sigma^2_1 = \sigma^2_2 = \sigma^2_3 = \ldots = 0$) in favour for the alternative hypothesis.

In general, the results of pooled OLS regression models show that cash dividend payment has a positive impact on the two used measures of firm value in the case of listed financial firms on Borsa Istanbul. Nevertheless, firm specific effect is commonly observed in non-experimental studies. Therefore, we also perform FE and RE regression models which they are believed to work better that pooled OLS for panel data.

5.5.2. Fixed-Effect and Random-Effect models

The two models of FE and RE control firm specific characteristics. Therefore, their results are more dependable compare to pooled OLS regression. Accordingly, we run both models to regress the two used dependent measures of firm value on the explanatory and control variables. This would provide us the results of four more regression models. However, we rely on the results of models 3 and 5 in table 5.5 that are only the FE models. We decided to use the Fixed Effect models after checking the Hausman test which helps to choose the best model between FE and RE. The results of Hausman test confirm that we can reject the null hypothesis that RE is the appropriate in favour for FE because the probability of Chi-squared is less than 1%.

The results of model 3 illustrate that cash dividend payment has a positive influence on price per share and it is significant at the 1% level. Specifically, 1% increase in cash dividend payment leads the price per share to increase by 44.1% with the standard deviation of 0.15. It is again confirmed that high dividend paid by listed financial firms in Turkey significantly increases the price per share for those firms in BIST. However, the impact is relatively smaller based on the results of FE compared to those for the pooled OLS model. The results also indicate that the share price of a larger firm is higher

in the stock market compared to the share price a firm with a smaller size by 24.6% with a standard deviation of 0.019. However, leverage has a negative impact on share price in a way that 1% increase in the firm's total debt ratio decreases 31.2% in the share price of that firm.

Table 5.5: FE and RE models

Variables	lnPPS is the dependent		Q is the dependent	
	FE (3)	*RE* (4)	**FE** (5)	*RE* (6)
CDP	0.441***	0.736***	0.189**	0.605***
	(0.151)	(0.140)	(0.163)	(0.136)
DPR	0.008	0.003	0.002	-0.008
	(0.018)	(0.018)	(0.019)	0.019
EPS	0.025	0.051**	0.007	-0.021
	(0.0172)	(0.017)	(0.019)	(0.017)
LNSIZ	0.246***	0.189***	-0.214***	-0.116***
	(0.019)	(0.013)	(0.021)	(0.010)
ROA	-0.045	-0.069	0.008	0.060
	(0.055)	(0.055)	(0.060)	(0.059)
TDR	-0.312**	-0.385**	-0.434**	-0.490***
	(0.141)	(0.119)	(0.152)	(0.105)
C	-2.807***	-2.080***	3.440***	2.145***
	(0.241)	(0.173)	(0.281)	(0.132)
Adj. R-squared	74.40	21.08	53.39	17.72
F-statistics	36.39	44.32	14.95	35.96
Prob (F-statistic)	0.00	0.00	0.00	0.00
Hausman test	89.07***		114.30***	
Observation		975		

$lnPPS_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$ …. (3&4)

$Q_{it} = \beta_0 + \beta_1 CDP_{it} + \beta_2 DPR_{it} + \beta_3 EPS_{it} + \beta_4 lnSIZ_{it} + \beta_5 ROA_{it} + \beta_6 TDR_{it} + \varepsilon_{it}$ ……. (5&6)

*** Correlation is significant at the 1% level, ** significant at the 5% level (two-tailed); standard errors are in brackets.

In spite the impacts of DPR, EPS and ROA are not statistically significant, adjusted R-squared in model 3 indicates that the variables can explain 74.4% variance in the dependent variable; lnPPS. The coefficient of the intercept outlines that the price per share of the sample firms has declined on average by 280% over the studied period 2005-2017. Additionally, the probability of F-statistics confirms the good fitness of the model.

The results of FE model 5 shows that the impact of CDP on Tobin's Q ratio is positive and statistically significant at the 10% level. An increase by 1% in cash dividend payment increases market value over book value by 18.9% in the 95% confidence interval. This yet again confirms that cash dividend has a positive influence on firm value of the listed financial firms on BIST. The impacts of DPR, EPS and ROA on Tobin's Q are positive but statistically insignificant. Both firm size and leverage are negatively related to Tobin's Q ration as 1% increase in size or leverage separately lead to a decline in Tobin's Q ratio by 21.4% or 43.4% respectively. The intercept coefficient of model 5 outlines that the ratio of Tobin's Q for the sample firms has increased over the period 2005-2017 by an average of 344%, holding the impact of all the variables constant.

The results of model 5 show that the explanatory and control variables can together explain 53.39% disperse in the dependent variable which is Tobin's Q ratio. This is claimed based on the adjusted R-squared obtained in the regression model 5. Moreover, the F-statistics confirm that the model is good fitted since the probability of the test is significant at 99% confidence interval.

5.5.3. Impact of IFRS on Dividend policy –Firm value relationship

Since IFRS is considerably different from the applied local accounting system, its impact on the quality of accounting information is expected to increase over time. Consequently, related employees (and employers) require time to attain experience. Moreover, they need to be trained in order to able to respond to the regulations properly. It might be the circumstance that stages of compliance can enhance with time passes and this in turn

positively influences the value relevance of accounting data (Alfaraih, 2009). Thus, it is expected that the IFRS can possesses a stronger positive impact on the relation between dividend policy and firm value in the long run.

According to the research design, the change in the association between dividend policy and firm value was measured by regressing the adjusted R-squared that were attained from the sequence of two-year panel regressions of dividend policy and firm value, on a time trend. Thus, the obtained adj. R-squared is the dependent variables and time trend is supposed as an explanatory variable (TIME). The results are illustrated in table 5.6.

Table 5.6: Linear Regression of the R-squared on a Time-Trend Variable 2005-2017

Model (7)		
Constant	Coefficient of TIME	Adj. R^2
0.102**	0.017***	
(0.036)	(0.005)	0.509
0.016	*0.004*	

Probability values for coefficients are in italic, *** Correlation is significant at the 1% level, ** significant at the 5% level (two-tailed); standard errors are in brackets.

Table 5.6 shows that the TIME coefficient is positive (0.017) and has a statistically significant level, probability < 0.01. This appears to specify that the relation between dividend policy and firm value has strengthened over the study period (2005-2017) in Turkey. The coefficient shows that the relationship has increased by 0.017 every year during those thirteen years. Therefore, we accept the hypothesis (H7) that IFRS adoption increased the relation between dividend policy and firm value for listed financial firms on BIST. The adjusted R-squared for model 7 indicates that the time trend variable can explain 50.9% changes in the relation between dividend policy and firm value.

5.6. Chapter Summary

In this chapter, the data was empirically analysed through a systematic procedure. The first two sections of the chapter provided detailed information regarding the nature of the data through figures and main descriptive statistics figures. We noticed that share price for the sample period was highly volatile and firms were following low dividend policy. Correlation matrices between the variables are presented in section three and they were all moderately related. Then, we performed several types of unit root test for stationary in the variables and we found all of them as stationary at level I(0). In the last section, pooled OLS, FE and RE models are performed to investigate the relationship between dividend policy and firm value. We found that cash dividend paid by financial firms listed on BIST during 2005-2017 has a positive impact on both PPS and Tobin's Q ratio.

Regarding IFRS adoption by the Borsa Istanbul in 2005, the results show that IFRS implementation has increased the association between dividend policy and firm value for listed financial firms on BIST.

CHAPTER 6
CONCLUSION

This chapter presents a summary of all the previous chapters. Additionally, it discusses the results of empirical investigation on the relationship between dividend policy and firm value. Finally, it presents implication policy and suggestion a long with recommendation for future study.

6.1. Summary and discussion of results

Two key theories of Walter and Gordon confirm the relevance motion of dividend to firm value. Walter model proves an obvious significant relationship between cost of capital and internal rate of return in the determination of dividend policy that tend to increase the interest of shareholders. Similarly, Gordon dividend capitalisation model confirms an important role of dividend policy in firm value determination. It claims that the market price of a stock is a reflection of the current value of declared dividend to be paid to the stock. Accordingly, both managers and investors care about dividend policy decisions and therefore it affects firm value in the market.

The main purposes of this study is to examine the expected relationship between dividend policy and firm value based on different measures aiming to empirically test the value relevance theory of dividends. This relationship is rarely investigated for financial firms especially in the emerging economies such as Turkey. Therefore, our study takes advantage of this and examines the relationship between dividend policy and firm value for listed financial firms Turkey. The sample period starts from 2005 based on the adoption of

IFSR at the beginning of that year. Secondary panel data would be used to achieve the purposes of the study. Data is collected from the main webpage of the stock market and DataStream (Thomson Reuters Database) for the period 2005 – 2017.

The paper addresses a set of research questions. First, does dividend intensive increase stock price for Turkish listed firms? Second, does dividend intensive increase market value to book value for Turkish listed firms? Finally, what is the impact of IFRS adoption on the relationship between dividend policy and firm performance of the sample firms over 2005-2017?

This study uses an explanatory research design to investigate the impact of dividend policy on the firm value for listed financial firms in Turkey. Correlation coefficient, several different types of multiple linear regression and some other diagnostic tests will be used in order to investigate the relationship for the sample firms.

The results confirm that an intensive cash dividend payment is associated with high price per share and high Tobin's Q ratio. In another word, we found that dividend policy has positively influenced firm value of listed financial firms on BIST during 2005-2017. Thus, we can confirm the acceptance of our first two hypotheses that claim dividend policy is positively associated with the measures of firm value. These results are consistent with the work by Baker, et al. (2018), Dogan and Topal (2014), Hussainey et al. (2011) Karpavicius and Yu (2018), Mokaya et al. (2013), Masum (2014) Nwamaka, 2017) and Patra and Dhar (2017) where as they are not in line with the findings by Hamza and Hassan (2017), Hashemijoo et al. (2012), Mohd and Norli (2012), Shah and Noreen (2016). The results indicate that investors might prefer dividends to capital gain regardless to the double taxation issue on corporation income and individual income from dividends. A reasonable explanation for this is that the return as dividend is certain unlike capital gains and this is consistent to the notion of bird in the hand theory.

Moreover, the results of FE models denote that EPS and ROA do not have significant impacts on firm value of financial firms of our research sample. This means that the indicators of profitability are value relevant for financial

firms in Turkey. Investors and shareholders are not care about capital gain but take into account cash payment via dividends when making investment and financial decisions. As a result, we can reject the null hypotheses that EPS and ROA play important roles on firm value of financial firms listed on BIST. However, firm size and leverage influences the value of those firms. Firm size has a positive impact on price per share whereas its impact is negative on Tobin's Q ratio. Share price for large firms are greater than for small firms. We further found that leverage has played a negative impact on firm value of our sample firms during 2005-2017. The reason could be that high debt ratio can increase the cost of bankruptcy and thus increase uncertainty for shareholders which can in return decline firm value in the market.

Regarding IFRS adoption, the results indicate that the relationship between dividend policy and firm value has strengthened over the study period (2005-2017) in Turkey. The coefficient shows that the relationship has increased by 0.017 every year during those thirteen years. A plausible explanation could be with the level of compliance over time. Compliance to IFRS could increase over time.

6.2. Contributions and implications

This study delivers beneficial insights into the literature about the value relevance of dividend policy decisions in a developing country, Turkey. Additionally, it adds to the literature through an empirical investigation of the financial firms listed on BIST which is rarely studied by researchers. Additionally, the study also examines the impact of IFRS adoption on the relationship between dividend policy and firm value. This study seems to be the longest investigation on this issue after IFRS adoption, particularly in Turkey.

A substantial implication of these results is to the managers of financial firms listed on BIST. Intensive cash dividends increase the value of the sample firms of this study. However, those firms follow low dividend policies with a considerably low frequency. Thus, managers can increase the value of their

firms by paying more regular and high cash dividends. The study also gives an insight to managers and investors that the impact of IFRS adoption could be further larger on the relationship between dividend policy and firm value in the future.

6.3. Limitations and Recommendations

One of the limitations of this study is the extent of generalizability. Because the study is only conducted for one country which is Turkey, we cannot simply generalise our results to the other countries because of many different aspects regarding the economic, financial, cultural, political, etc. circumstances. Therefore, the results are limited and may not be able to predict the relationships in other places.

In addition, another limitation is that this paper examines the relation between dividend policy and firm value only for the financial firms listed on BIST. Thus, we did not consider the sectors of non-financial firms. Therefore, we the recommendations for future studies can be as follows:

Future study might consider all the listed firms in Turkey. Such findings may deliver sharper insights into patterns of value relevance of dividend policy. It would be interesting to investigative that issue for both financial and non-financial firms listed on BIST and compare the results between the two sectors.

It would be interesting to expand the study and cover other countries that retain dissimilar financial, economic and legal systems. In doing so, the findings can be compared between them, which may provide pure evidence with regard to the long-term influence of IFRS on value relevance of dividend policy of different countries. In doing so, the behaviour of the relationship between dividend policy and firm value can be more confidently interpreted.

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PLAGIARISM REPORT

THE RELATIONSHIP BETWEEN DIVIDEND POLICY AND FIRM VALUE IN THE IFRS ADOPTION ERA: A CASE OF BORSA ISTANBUL

by Razha Rasul

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ETHICS COMMITTEE APPROVAL

09.10.2018

Sayın Razha Ahmed Rasul

Bilimsel Araştırmalar Etik Kurulu'na yapmış olduğunuz **"The Relationship Between Dividend Policy And Firm Value In The IFRS Adoption Era: A Case Study Of Istanbul Borsa"** başlıklı proje önerisi, sadece ikincil kaynak kullanıldığı için Etik Kuruluruna girmesine gerek yoktur. Bu yazı ile birlikte sadece ikincil kaynak kullanmak şartıyla araştırmaya başlayabilirsiniz.

Doçent Doktor Direnç Kanol

Bilimsel Araştırmalar Etik Kurulu Raportörü

Direnc Kanol

Not: Eğer bir kuruma resmi bir kabul yazısı sunmak istiyorsanız, Yakın Doğu Üniversitesi Bilimsel Araştırmalar Etik Kurulu'na bu yazı ile başvurup, kurulun başkanının imzasını taşıyan resmi bir yazı temin edebilirsiniz.

09.10.2018

Dear Razha Ahmed Rasul

Your project “The Relationship Between Dividend Policy And Firm Value In The IFRS Adoption Era: A Case Study Of Istanbul Borsa" has been evaluated. Since only secondary data will be used the project it does not need to go through the ethics committee. You can start your research on the condition that you will use only secondary data.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Direnc Kanol

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.